DISSERTATION ON

"A STUDY TO ASSESS THE EFFECTIVENESS OF PLAY THERAPY IN REDUCING POST - OPERATIVE PAIN AMONG CHILDREN AGED 2-5 YEARS WHO HAVE UNDERGONE ABDOMINAL SURGERIES IN INSTITUTE OF CHILD HEALTH, CHENNAI"

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CERTIFICATE

This is to certify that this dissertation titled **"A study to assess the effectiveness of play therapy in reducing post-operative pain among children aged 2- 5 years who have undergone abdominal surgeries in Institute of child health and hospital for children, Chennai** is a bonafide work done by **B. Chitra**, M.Sc., Nursing II Year Student, College of Nursing, Madras Medical College, Chennai - 600 003 submitted to **The Tamilnadu Dr.M.G.R. Medical University**, **Chennai** in partial fulfilment of the requirements for the award of Degree of Master of Science in Nursing, Branch -II, CHILD HEALTH NURSING, under our guidance and supervision during the academic period from 2015-2016.

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- Doughlas Adams.

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Abstract

TITLE: " A study to assess the effectiveness of play therapy in reducing post-operative pain among children aged 2-5years who have undergone abdominal surgeries in Institute of Child Health and Hospital for Children, Chennai.

Play is one of the most important aspects of a child's life and one of the most effective tools for managing stress, agony and pain.

The use of play in therapy was first elucidated by the pioneers of child psychotherapy. AnnaFreud (1928, 1964, 1965) Margaret Lowenfed (1935, 1970) and Melaine Klien(1961, 1987) posited the theoretical premise for the use of play .In this study play therapy is tried to reduce the post- operative pain among children aged 2-5 years who have undergone abdominal surgeries.

Need for the study: When I was posted in surgical post-operative ward, I found that children were crying most of the time out of pain and moreover routine pain assessment procedure is not being carried out by nurses In this situation, I observed that few children when they were provided with play materials by their parents, they stop crying and started to play with the given play toys. So I had an intention to assess the pain intensity in children who have undergone abdominal surgeries and evaluate the effectiveness of play therapy reducing the intensity of pain in those children and thus I suggested to select this topic for my research study

Objectives

- To assess the intensity of post-operative pain among children who have undergone abdominal surgeries before, during and after administering play therapy in experimental and control groups.

- To determine the effectiveness of play therapy on post-operative pain among children who have undergone abdominal surgeries in experimental and control groups

- To determine the association in post-operative pain and play therapy among children who have undergone abdominal surgeries, regarding selected variables such as age, sex, educational status and physical parameters.

METHODOLOGY

Research approach - Quantitative research approach

Study design - Quasi-experimental design.

Study Setting - Post-operative ward and S.I.C.U at ICH

Sampling technique - Convenient sampling technique.

Sample size - **60** (30 experimental &30 control group)

Data analysis - Data were analyzed with both descriptive and inferential statistical methods.

MAJOR FINDINGS OF THE STUDY

Discussion - After play therapy majority (70%) of the children in experimental group and control group revealed significant differences

Recommendations - The similar study can be replicated with larger samples for better generalization.

Conclusion - The investigator concludes that the play therapy was found to be effective for children who have undergone abdominal surgeries and there was significant association between play therapy and reduced perception of pain during post-operative period.

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CHAPTER-1

INTRODUCTION

"Children are a priceless resource and any nation which neglects them would do so at its Peril"

- Mehlar

Comfort is a concept, central to the art of nursing. The concept of comfort is a subjective one as that of pain. Post-operative pain is an enduring and widespread problem in the care of surgical patients especially in children.

Pain has different meaning for each person and may differ for the same person at different time. Pain initially has an important protective function warning the person of impending tissue damage.

The word pain comes from the Greek word **"poine"** which means punishment or penalty. International association for the study of pain, defined **PAIN** "as an unpleasant, subjective sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage".

Pain is subjective and is individually experienced and often difficult to describe and measure. Nurses and parents make judgements of pain intensity by observing the behaviour of the child. This can be effectively carried out using the skill of observation. A variety of methods which are essentially non-verbal have been devised to study children pain because of subjectivity of pain and children's lack of fluency.

Relief of pain is a basic need and right of all children. Basically pain reducing methods can be grouped into two categories. Non-pharmacologic and pharmacologic. Whenever possible both should be used. Pain is often associated with fears, anxiety and stress. A number of non-pharmacologic guided imagery and cutaneous stimulation provide coping strategies that may

help to reduce pain perception, make pain more tolerable and decrease anxiety. In pharmacological management, non-opioids and NSAIDS are suitable for mild to moderate pain and opiods are needed for moderate to severe pain.

The use of play in therapy was first elucidated by the pioneers of child psychotherapy. **Anna Freud (1928, 1964, 1965) Margaret Lowenfeld (1935, 1970)** and **Melanie Klein (1961, 1987)** posited the theoretical premise for the use of play.

Play is one of the most important aspects of a child's life and one of the most effective tools for managing stress and agony.

Children develop their physical and intellectual abilities during play. Play can help to develop the creativity and provides therapeutic release for stress and tension.

Play enables, strengthens and develops muscular and sensory ability, through tactile, visual and auditory sensation.

Therapeutic play also helps the children to express their emotion, situation and helps in getting co-operation from the child during treatment and caring.

Therapeutic play also helps socialization and in developing social relationship, friendship and oneness is formed.

Encyclopaedia of mental disorders refers play therapy ***"as a method of psychotherapy with children in which a therapist uses a child's fantasies and the symbolic meanings of his or her play as a medium for understanding and communication with the child".***

Through sensorimotor play, children explore the nature of the physical world. Infants gain impression of themselves and their world through tactile, auditory, visual and kinaesthetic stimulation. Toddlers and pre-schoolers reveal in body movement and exploration of things in space. Through exploration and

manipulation children learns colours, shapes, sizes, textures and the significance of objects.

Children can experiment and try out their ideas in play through every medium at their disposal including raw materials, fantasy and exploration. After children feel the satisfaction of creating something new and different, they transfer this creative interest to situations outside the world of play. Children learn who they are and their place in the world. Children reveal much about themselves in play.

Play has been known to divert a child's mind e.g. a crying child will stop crying when a toy is given to play with. A cardinal responsibility in nursing is providing comfort and relieving distress. Therefore one of the methods that can be used to relieve pain is diversion through play. Therapeutic play is a concept, which is gaining increasing focus today and provides the child a release from stress and tension.

Jaan (2001) stated that play therapy can be used in preparing children for painful procedures. **Bindu Khurana (2000),** stated that, when play is used for therapeutic purposes, it is called **play therapy**. This term is based upon the fact that play is the child's natural medicine. **Ann Meer (1997)** expressed that play therapy is one technique that nurses can use in preparing children for hospitalization. Therefore nurses should take responsibility to organise play facilities for individual or small groups of children. **Bocchantes (1978)** in his study, suggested that medication is not always necessary for all types of pain.

Other nursing interventions which help to relieve pain include changing the position, making a comfortable bed, giving massage and diversional activities.

1.1 NEED FOR THE STUDY

"So often the only treatment for child's pain is the aim of their parents."

- MC. Caffery.

In institute of child health, there are 2 post-operative wards-one in the first floor ward (No. 221) and other in the second floor as S.I.C.U which comprises of four units under 4 chief professors. All the units are specialised in performing general, abdominal and urological surgeries.

There are 15 beds in this ward where children between the age group of 1 month to 12 years are hospitalised to get post-operative care. During the I and II post-operative days JONAC 12.5mg is given rectally to relieve pain whenever necessary .On the III post-operative day few children receive paracetamol as analgesic and few children don't get any analgesics. Those children who complaints of severe pain get pain killers after getting surgeon's order.

Most of the children who have mild to moderate pain were crying most of the time. More over routine pain assessment procedure is not being carried by nurses. No analgesics is being administered for those children.

In this situation, I had my postoperative ward posting for two weeks. I observed that few children when they are provided with play materials by their parents, they stop crying and started to play with the given play toys.

In the postoperative ward there is no specific diversional activities given to children like play therapy, colourful and attractive posters, charts, pictures and television to divert the child's mind from pain sensation.

So, I had an intention and interest to assess the pain intensity in children who have undergone abdominal surgeries and evaluate the effectiveness of play

therapy in reducing the intensity of pain in those children and thus I suggested to select this topic for my research study.

TABLE – 1

Surgical Statistics in Institute of child health

Year	No. of Children underwent surgeries
2013	12,500
2014	12,380
2015	15,700

Source: *Medical Records Department, Institute of Child Health, Egmore, Chennai-8.*

TABLE-2

Surgical Statistics of Abdominal Surgeries for the Year 2006

S.No	surgeries	Number
1.	Stomach	67
2.	Intestine	610
3.	Ano-Rectal	329
4.	Hepato Biliary	73
5.	Urology	479
	TOTAL	**1558**

Source: *Medical Records Department, Institute of Child Health, Egmore, Chennai-8.*

The number of surgeries underwent by toddlers and pre-schoolers exceeds hundred per month.

This study was proposed to determine the effect of play therapy on reduction of post-operative pain experienced by children.

1.2 STATEMENT OF THE PROBLEM

"A study to assess / the effectiveness of play therapy in reducing post-operative pain among children aged 2-5 years who have undergone abdominal surgeries at Institute of child health, Chennai.

1.3 OBJECTIVES

1. To assess the intensity of postoperative pain among children who have undergone abdominal surgeries before, during and after administering play therapy in experimental and control groups.
2. To determine the effectiveness of play therapy on postoperative pain among children who have undergone abdominal surgeries in experimental and control groups.
3. To determine the association in postoperative pain and play therapy among children who have undergone abdominal surgeries, regarding selected variables such as age, sex, educational status and physical parameters.

1.4 OPERATIONAL DEFINITIONS

- **Children :** Refers to children admitted in the paediatric surgical ward between the age group of 2-5 years who have undergone abdominal surgeries and selected on the third post-operative day, both male and female children were included in the study.
- **Abdominal Surgeries:** All the surgeries which involves an incision made in the abdomen.
- **Post-operative Pain:** Refers to the discomfort and distress experienced by an individual child after a surgical intervention.
- **Effectiveness:** Effectiveness is defined in terms of reduction in pain score during the intervention through play therapy.
- **Play Therapy:** Play therapy is the opportunity provided for the children to manipulate, create, draw, interact and involve themselves with selected activities or objects (i.e.,) toys…

The following types of play were included in play therapy.

Toys, building blocks, cooking utensils, reading story from a picture book, story telling, arranging the circles according to colour and size, busy beads, drawing, painting, reading the alphabet or number from charts, finding the way to home, etc., according to the age and interest of the children.

1.5 ASSUMPTION

Play therapy by diverting the mind of the children will have an effect in reducing post-operative pain.

1.6 HYPOTHESIS

H1 - There will be no significant difference in the intensity of postoperative pain perception among children who have undergone abdominal surgeries between experimental and control groups in the pre-test.

H2 - There will be a significant difference in the intensity of postoperative pain among children who have undergone abdominal surgeries between experimental and control groups during play therapy.

H3 - There will be a statistical significant difference in the intensity of postoperative pain reduction among children who have undergone abdominal surgeries between experimental and control groups in post-test observations.

H 4 - There will be a significant difference in the intensity of post-operative pain among children who have undergone abdominal surgeries before, during and after the play therapy among the experimental groups.

1.7 DELIMITATIONS

- The study is delimited to a period of 4weeks.
- The study was conducted at Institute of child Health, Chennai.
- Among the two post-operative wards, the study was conducted in S.I.C.U.

CHAPTER-II

REVIEW OF LITERATURE

According to **Faye.G.Abdellah,** a review of literature is an important step in the development of the research project, and it also provides useful comparative material when the data collected is analysed.

Review of literature is a brief summary of previous research and the writing of recognized experts provides evidence that the researcher is familiar with what is already known and with what is still untested.

Research & non-research literature were received to broaden the understanding and gain insight in the problem under study. Literature review is based on an extensive survey of books, journals and international nursing index.

Section-I: Literature Related to Study

Section-II: Conceptual frame Work

Section I : LITERATURE RELATED TO STUDY

Research literature was organized under the following headings.

i. Studies related to pain assessment.

ii. Studies related to play therapy.

iii. Studies related to play therapy and its therapeutic use in the pain reduction.

I. Studies Related to Pain Assessment

Martha et al (2003) conducted a study to test the validity of the Face, Legs, Activity, Cry and Consolability of FLACC behavioural Pain Assessment Scale for use with children. Thirty children aged 3-7 years (5.01±1.44) who have undergone a variety of surgical procedures were observed and assessed for pain intensity at 20+2 hours after a surgery. FLACC scores were assigned by one of the nurse investigators, and a self-report of pain using the FACES scale was obtained from the child. There were significant and positive correlations between the FLACC and FACES score for the entire sample and for the scores of children 5.7 years of age, but not for children <age 5. These findings provide additional support for the construct validity of the FLACC Pain Assessment Tool.

Hester et al (2000) conducted a study to support the validity of the FLACC pain assessment tool in post-operative children as demonstrated by significant positive correlations between FLACC and FACES Scores. 3 to 4 years old children who have undergone surgeries were taken as samples, the findings from this study lend support to the overall construct validity of the FLACC as a measure of post-operative pain in children. Further study in a variety of settings involving diverse cultures and races provide data for further validation and generalization of this scale.

Coffman (1999) conducted descriptive, comparative research among 25 critically ill children in PICU in a metropolitan general hospital to describe how nurses assess and manage pain in critically ill children. Pain indicators used by nurses include cardiovascular and respiratory changes (increased heart rate, respiratory rate and blood pressure), followed by behavioural indicator (irritable, fussy, verbalizing pain and crying) and neuromuscular responses (tenseness/rigidity, drawing up legs). The tool encompassed of observation on the behaviour of a child. The average number of pain indicators selected during each medication event was 5.3. The finding revealed that pain assessment of

critically ill children includes unique indicators, as compared to less sick children, and must take into account the child's decreased ability to communicate pain.

Boughton et al (1998), conducted a study to determine if regular assessment of children pain would improve their pain management and post-operative progress among children ,aged 5 to 17years Pain was measured every 4 hours post-operatively using the Wong-Baker rating scale .The sample size was 50. The results reveals no statistically significant differences in these variables. An important clinical findings was that despite all children having prescribed PRN analgesic orders, one-fourth number of the children received no pain relief interventions .Also, another fourth number of the children stated that their pain control was only partially effective .Study results reinforce findings reported in the literature regarding ineffective pain managements in children, and highlighted the need for improved nursing practice.

Merkel (1997) conducted a study to evaluate the reliability and validity for the FLAAC pain assessment tool which incorporates 5 categories of pain behaviours, among eighty nine children aged 2months to 7years, (3.0+/- 2.0yrs) who had undergone a variety of surgical procedures ,were observed in the post anaesthesia care unit(PACU).The study consisted of (1) measuring inter rater reliability, (2)testing validity by measuring changes in FLAAC scores in response to administration of analgesics and (3)comparing FLACC scores to other pain ratings. The tool used here was FLACC pain scale behavioural scale and objective pain scale. The result shows that FLACC tool was found to have high inter rater reliability. Validity was also supported by the correlation with scores assigned by the objective pain scale (OPS) and nurses global ratings of pain. Thus the FLACC provides a simple framework for quantifying pain behaviours in children who may not be able to verbalize the presence of severity of pain.

II. Studies Related to Play Therapy

William (2007) conducted a study to examine the effectiveness of therapeutic play on outcomes of children undergoing day surgery. Two hundred and three children admitted for day surgery were invited to participate in a randomized controlled trial. The experimental group received therapeutic play, the control group received routine information preparation. Children in the experimental group reported significantly lower state of anxiety scores in pre and postoperative periods and exhibited fewer negative emotions at induction of anaesthesia than children in the control group.

Vasantha Kumari (2005) conducted an experimental study to assess the effectiveness of play therapy in promoting socialization among the mentally challenged children between 6-12 years of age studying at Vasantham, Chennai Quasi experimental design and 60 moderate mentally challenged children between 6-12 years of age were selected. Organized play therapy sessions were planned for the moderate mentally challenged children. After the pre-test regarding socialization aspect among the moderate mentally challenged children. The level of socialization was assessed using structured observational checklist. The mean improvement in overall level of socialization among the moderate mentally challenged children in the post test was 15.05, SD 12.59 with a 't' value of 6.81 which was highly significant at $P<0.001$ level. The level of socialization in moderate mentally challenged children after the play therapy showed a definite improvement.

Orit Joseli et al (2004) conducted an exploratory research on the feasibility of non-directive play therapy for children with autism. Video recordings of 16 sessions of play therapy with a 6-year-old boy with sever autism were analysed qualitatively and quantitatively. The study concluded that this child was able to enter into a therapeutic relationship and demonstrated attachment behaviour towards the therapist Key areas of improvement were in the child's development of autonomy and pretend play, while ritualistic

behaviours showed only mild improvement. Changes in therapy were concurrent with the changes reported by the boy's mother at home of increased independence and empathy. One implication of this preliminary research is that non-directive play therapy may enhance and accelerate emotional/social development of children with severe autism.

Rey et al (2001) completed a meta-analysis of 94 research studies investigating the clinical effectiveness of play therapy. 94 studies measured the effects of play therapy conducted by mental health professionals in America and contained 3263 subjects (mean age = 7.1 years). Experimental design was used for each of the 94 studies. The 94 studies investigated the effectiveness of play therapy with different client groups. A total of 20 client groups were investigated, including difficulties such as conduct disorder, anxiety/fear, speech and language difficulties, depression, sexual abuse and post traumatic stress disorder. The results of meta-analysis conducted by **Rey et al** revealed a large effect size (d=80). The authors concluded that play therapy is an effective intervention for a broad range of children's difficulties.

Worchel (2001) compared the effects of play on the psychological adjustment of 46 children hospitalized for acute illness. The children were placed in one of four groups (i.e.) therapeutic play, diversional play, verbal support and no treatment. Ratings of psychological adjustment included self-report as well as nurse and parents ratings. Children in the therapeutic play condition evidenced a significant count reduction in self-reported hospital fears.

Angela (2001) conducted a study concerning the effect of play on immobilized children in the hospital. It aimed to determine whether any difference existed in the preparation of time, social space and self of the two groups of immobilized children in the hospital. It aimed to determine whether any deferments existed in the perception of time, social space and self for the two groups. Six immobilized children were randomly assigned to the

experimental and control group. Children in the control group were exposed to the regular ward stimuli while the experimental group participated in four periods of planned paly. Finding indicates that immobilized children participated in planned play period exposed more positive feelings towards themselves than the control group.

iii. Studies related to play and its therapeutic use in pain reduction:

Lopez (2007) conducted a study to examine the effects of therapeutic play intervention on outcomes of children undergoing day surgery, and to highlight the importance of parental involvement in the psycho educational preparation of children for surgery. A randomized controlled trial, two group pre-test and repeated post-test between subjects design was employed. Hong Kong Chinese children (7-12 years of age; n203) admitted for elective surgery in a day surgery unit, along with their parents during a 13-month period, were invited to participate in the study. By using a simple complete randomization method, 97 of children with their parents were assigned to the experimental group receiving therapeutic play interventions, and 106 children with their parents were assigned to the control group receiving routine information preparation. The results showed that both children and their parents in the experimental group reported lower state anxiety scores in pre and post-operative periods. Children in the experimental group exhibited fewer instances of negative emotional behaviours and parents in the experimental group reported group greater satisfaction.

Maheswari (2002) conducted a study to assess the effectiveness of play therapy in post-operative pain among children who had undergone minor surgeries Study was conducted among 40 children which include 20 in experimental group and 20 in control group using convenience sampling technique. Research approach selected for this study was evaluate in nature and research design was multiple time series design with control group. The findings of the study revealed the effectiveness of play therapy. The results

showed that there was no significant association and difference between selected demographic variables and post-operative pain. The conclusion of the study reveals that there is effectiveness of play therapy in reducing the pain of children who had undergone minor surgeries.

Lal et al (2001) conducted an experiment study to test eutectic mixture of local anaesthetics (EMLA) cream which is used routinely as a local anaesthetic (anaesthesia prior to venepuncture in children.) Cognitive-behavioural interventions, such as distractions by breathing and blowing exercise have been used and found helpful as alternative coping strategies before and during venepuncture, and in these children evaluated the need for EMLA using a prospective, randomized placebo-controlled clinical trial. 28 children attending for venepuncture were recruited, median age 6 years (range 4-8 years), and randomly allocated to receive either EMLA or a placebo-cream. All were given distraction therapy prior to and during the procedure by a play specialist. Venepuncture was carried out by one investigator. A modified pain assessment chart was used for objective pain score at the end of the procedure. After one exclusion the treatment group (17 children) and the placebo group (10 children) were similar medium age of 6 and 7 years (range 4-8), measure baseline and post-procedure heart rate and oxygen saturation. The median for total pain score in the treatment group was 1 (0 to 4.5) and in control group 1 (0 to 2.3). There was no significant difference in the pain score between the EMLA and placebo groups, suggesting that in this age group if carefully selected children receive distraction during venepuncture EMLA may not be necessary.

Thampy (2000), conducted a study on the effectiveness of play therapy in helping children between three to twelve years in coping with painful procedures, revealed adequate coping and the ability was shown by 62.5% of the children in verbal responses 3.1% in facial expression 34.4% in posture and 46.9% in physical activity of the behaviour rating scale. Play therapy had

helped in improving coping ability of children during painful procedures and children with play therapy coped better than children without play therapy.

Lizzie (1995) conducted a study to assess the effectiveness of play therapy in the reduction of post-operative pain in children following major surgeries. A total number of 40 children were included in the study 20 in experimental and next 20 in control group. The children were allowed to play for as long as they wanted and stopped when they felt tired or complained of more pain. The difference in the score were analysed and compared and the result showed significantly higher scores in the experimental group, indicating a greater reduction in pain in that group within the hour when play was given. This could mean that the reduction could be more significant because of the play.

The University of Hong Kong conducted this study was to examine the effects of therapeutic play on outcomes of children undergoing day surgery [2007]. Two hundred and three children admitted for day surgery were invited to participate in a randomized controlled trial. The experimental group received therapeutic play; the control group received routine information preparation. Children in the experimental group reported significantly lower state anxiety scores in pre- and post-operative periods and exhibited fewer negative emotions at induction of anaesthesia than children in the control group. No significant differences were found between the two groups in post-operative pain. The study provides some evidence that therapeutic play is effective in pre- as opposed to post-surgical management of children.

A **Hospital at Melbourne** conducted a study to find out the post-operative recovery process is more painful, slower, and more complicated in young children who had high levels of post-operative anxiety by **Patrick Gomez.** The participants are 241 children aged between 5 to 12 years scheduled to undergo elective outpatient tonsillectomy and adenoidectomy. Before surgery the child and prenatal anxiety level is assessed. After surgery,

post-operative pain and analgesic consumption were assessed every 3hours. After 24hours in the hospital, children were discharged and followed up at home for the next 14 days. The result of this investigation is parental assessment of pain in their child showed that anxious children experienced significantly more pain both during the hospital stay and over the first 3 days at home. During home recovery, anxious children also consumed, on average, significantly more codeine and acetaminophen compared with the children who were not anxious. Anxious children also had a higher incidence of emergence delirium compared with the children who were not anxious and had a higher incidence of post-operative anxiety and sleep problems.

Therapeutic play in the form of an interactive puppet show was administered to 50 preschool children one day before surgery in a hospital in Lebanon [1998]. A control group of 50 preschool children received routine care, but not therapeutic play. Physiological and behavioural measures were assessed on admission, at the time of a stressful procedure (preoperative injection), after surgery, and after discharge. Although on admission there had been on significant differences between the means on physiological measures for the two groups, the children who received the therapeutic play intervention manifested markedly less anxiety and more cooperation and had significantly lower mean blood pressures and pulse rates during the injection than the control group. Following surgery, the experimental group took less time to void their bladders, another physiological indication of lower stress level. After hospital discharge, the children who had received therapeutic play had significantly lower scores on all six factors of the Post Hospital Behaviour Questionnaire. This study demonstrates that therapeutic play is a valid means of reducing stressful responses to hospitalization and surgery among children in Lebanon.

Pan HL., Chiv PC, Shen JF, Chen CW (2004) conducted a study on application of therapeutic play to compare the effect of play activities on the level of anxiety after surgery in an intervention and control group of **Iranian**

children. 75 children aged 5-12years were enrolled in intervention and the control group. The anxiety symptoms were assessed using State Trait Anxiety Inventory for children, children's Manifest Anxiety Scale and Yale Pre-operative Anxiety Scale. The result showed that anxiety score was lowered in the interventions group when compared to the control group and was statistically significant. The study concluded that attending play rooms and using play activities may reduce the anxiety level induced by surgical procedure.

Leite TM, Shimo AK. (2008) conducted a study on "care for the emotional needs of hospitalized children has had the attention of nursing professionals in Brazil". The chance to play is known as a relief from suffering, especially in childhood, which justifies the importance of this theme. This study had the objective of analysing **Brazilian nurses'** academic production on the use of toys during the attention to children in hospitals in **strictu sensu Graduate programs.** Data were taken from Portal CAPES, CEPEN, IBICT and papers' references. Of the 15 theses/dissertations found in the literature only 14 are available; they were analysed and comprise the corpus of this study. It was found that toys have been used mostly in pre and post-surgery, by Nursing professors, with preschool and school age children parents and nurses. All of the works reinforce the positive results of toys' use. We recommend to paediatric nurses the use of toys in all institutions where children need care.

A quasi experimental study was conducted to assess the effectiveness of play activities in reducing anxiety among hospitalized children in Bangalore. Convenient sampling was used in which 60 pre-schoolers between the age group of 3-6years were selected. Data was collected using hospital observed checklist. For the experimental group mean and standard deviation was 53.4 and 1.73 respectively. The obtained 't' value was 49.04 at 0.05 level. For the control group mean and standard deviation were 53.1 and 0.96 respectively. The obtained 't' value 0.724 at 0.05 level. The findings showed that children were anxious in the pre-test and were as in the post test showed that children

were not anxious. The mean post-test was significantly higher than the mean pre-test score ($t=p<0.001$). There was significant association between findings and demographic variables. The study concluded that children were anxious in the pre-test whereas post-test anxiety was reduced, which indicated that play therapy was effective.

Mitre RM, Gomes R. (2007) conducted a study on "the standpoint of healthcare practitioners on the promotion of play in hospitals". This study examines and analyses the limits and possibilities of the promoting play in hospitals. This investigation can contribute to the collective health field, as discussions about the views of healthcare practitioners on promoting play in hospitals may well influence the development of new childcare models. This discussion is grounded on a qualitative approach to the dynamics of relationships and the role of play in a hospital setting. Drawn from interviews with 33 practitioners from three hospitals located in different parts of Brazil, the data analysis based on linking up issues that emerge from their comments, together with theoretical references. In terms of findings, the acknowledgement of this type of intervention by institution could facilitate or complicate these actions. The conclusions clearly indicate that assigning play promotion the status of a therapeutic tool within a healthcare environment may subvert the rules and hierarchies of the institution.

A study was conducted by **Ribeiro CA in 1991,** on "The effect of therapeutic use of play articles by the paediatric nurses on the behaviour of recently hospitalized children", describes the realization and results of an experimental research accomplished with children from 3-5years age, recently hospitalized, using therapeutic play. The results showed that it helped children behave more according to what is expected of them as well as show signs that they had adapted or presented ego strength.

Conclusion

The review of literature has helped the investigator to get broader understanding of the content and to design conceptual frame work and to conduct the study in an effective manner.

Section-II CONCEPTUAL FRAME WORK

A conceptual framework refers to concepts that structure or offers a framework of preposition for conducting research.

The conceptual framework and model adopted for this study is based on **Sister Callista Roy's adaptation model.** which focuses on the **concept of adaptation of a person.** The theorist concept of nursing, person, health and environment are all interrelated to this central concept. The person continually scans the environment for stimulant.

Roy expressed that a person's adaptation level is constantly a changing point made up of focal, contextual and residual stimuli which represent the person's standard range of stimuli to which one can respond with ordinary adaptive responses may be either on adaptive or ineffective responses. Adaptive responses are those that promote the goals of adaptation. Ineffective response are responses that find to achieve or threaten the goals of adaptation.

- **Focal Stimuli**

Focal stimuli is considered as the internal or external stimulus most immediately confronting the human system.

Surgical incisional pain is considered as **focal stimuli.**

- **Contextual Stimuli**

Contextual stimuli are all other stimuli present in that situation that contributes to the effects of focal stimuli. That is contextual stimuli are coiled

in the environmental factors that present to the person from with or without but which are the center of the person's attention an energy.

The contextual stimuli are the socio-economic and demographic variables (age, sex, educational status, physical parameters and types of anaesthesia, post-operative sedation and analgesics).

- **Residual Stimuli**

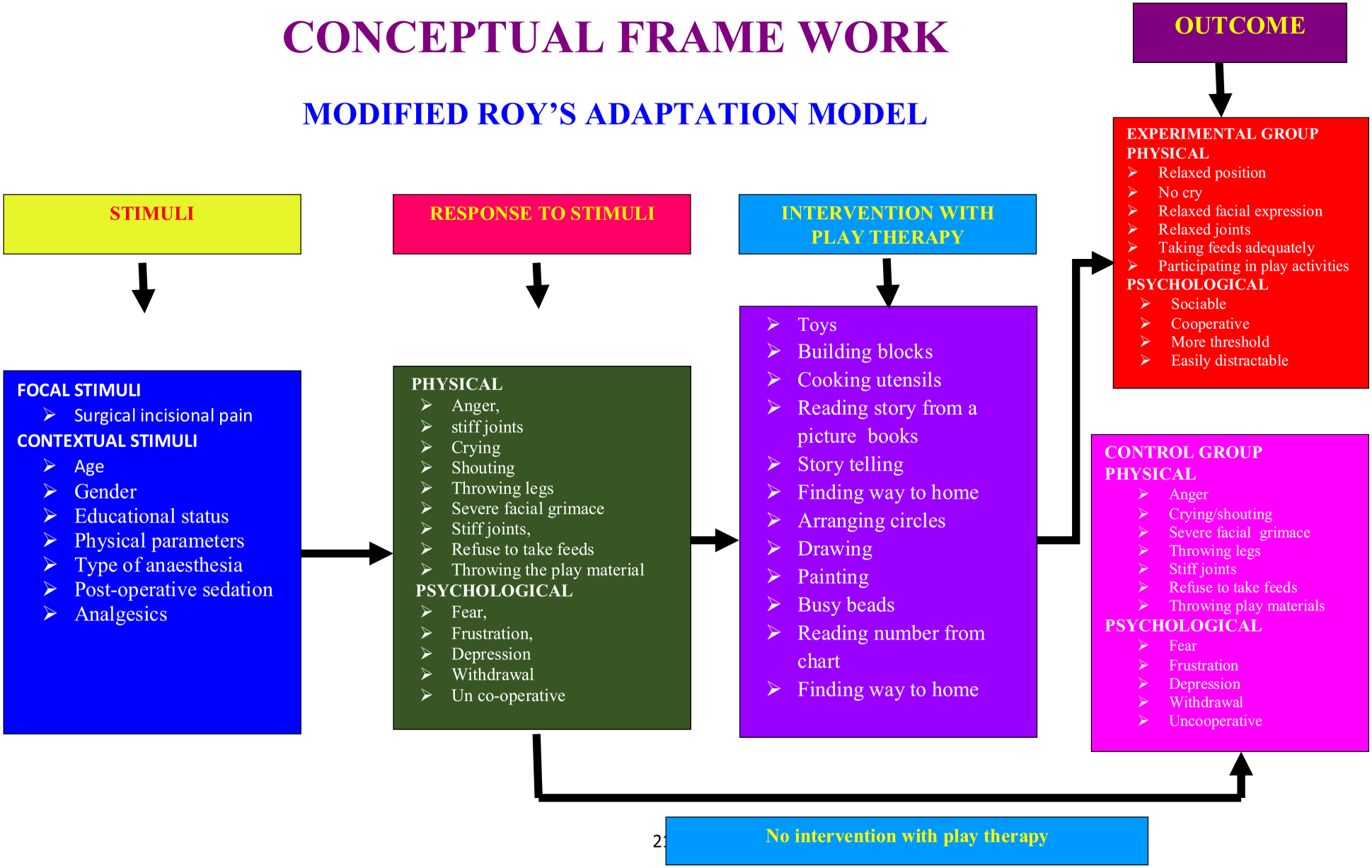
Residual stimuli are environmental factors within or without the human system with effects in the current situation that are unseen. The environment of the children who have undergone abdominal surgeries are the source of variety of stimuli that either threaten or promote the child's uniqueness. In this study the investigator considered the person as children undergone abdominal surgeries (2 to 5 years) who have been admitted in post-operative ward.

The investigator provided play therapy to the children who have undergone abdominal surgeries. The adaptive responses among the experimental group are relaxed position, no cry, relaxed facial expression, relaxed joints, participating in play activities, sociable, more threshold etc.,. This adaptation is determined by assessing selected physical and psychological factors (anger, crying/shouting, throwing legs, severe facial expression, stiff joints, fear, frustration, depression, etc.,).

Figure-1

CONCEPTUAL FRAME WORK

MODIFIED ROY'S ADAPTATION MODEL



CHAPTER - III

RESEARCH METHODOLOGY

Research methodology is a blue print to conduct a research study, which involves the description of research approach, study setting, sampling size, sampling technique, tools and method of data collection and analysis to answer a specific research questions or for testing research hypothesis.

3.1. Research approach

The research approach is by research methodology which is a systematic way to solve the research problem. It is a science of studying how research is done scientifically. So, research methodology is a significant part of the research under which the researcher is able to project a blue print of the research under taken.

3.2. Duration of the study

Four weeks (from 16-7-2015 to 15-8-2015)

3.3. Study setting

The study was conducted in post-operative ward and Surgical ICU at Institute of Child Health and Hospital for Children, Chennai.

3.4. Study design

A research design is defined as the overall plan for collecting and analyzing data, including specification for enhancing the internal and external validity of the study. Selection of study is based on the purpose of study.

The research design used for this study is quasi experimental design. Quasi experimental design involves the manipulation of an independent variable that is the institution of an experimental treatment.

Group	Before	During intervention	After
E	O_1	XO_2	O_3
C	O_4	$-O_5$	O_6

SCHEMATIC OUTLINE OF STUDY DESIGN

E - Experimental Group

C - Control group

X - The intervention through play therapy

$O_1O_2O_3$ - Pain behavioural score in experimental group before, during and after play therapy

$O_4O_5O_6$ - Pain behavioural score in control group before, during and after play therapy

Intervention protocol

Place : post-operative ward (221) & S.I.C.U.

Intervention : play therapy for experimental and control group.

Duration : 30 minutes

Frequency : Twice a day

Time : 8.00-9am and 4pm-4.30pm

Administered by : Investigator

3.5. Study population

The target population of the study are the children who have undergone abdominal surgeries in Institute of Child Health and Hospital for Children, Chennai.

3.6. Sample size

Sample size 60, (30 children were in experimental group and 30 were in control group).

3.7. Criteria for selection of samples

3.7.1. Inclusion criteria : The criterion that specifies the characteristics of that help people in the population must possess are referred to as inclusion or eligibility criteria. The inclusion criteria for the present study were:

- ❖ Children who have undergone abdominal surgeries.
- ❖ Children who were available on III post-operative day.
- ❖ Children between 2-5 years of age
- ❖ Children who were conscious and well oriented
- ❖ Children of both sexes

3.7.2. Exclusion criteria : The criterion that specifies the characteristics of that people in the population who may not possess is referred to as exclusion criteria. Exclusion criteria of the present study were

- ❖ Children who were treated as out patient after minor surgeries
- ❖ Children who have undergone other abdominal surgeries

3.8. Sampling technique

Convenience sampling technique was used to select the samples for the study (ie) children who were undergone abdominal surgeries and who were available on the third post-operative day and also willing to participate in the study according to sampling criteria. Convenience sampling is non probability method in which the sampling units are selected because they are available to the investigator at the time of data collection.

3.9. Research variables: Variables are characters that can have more than one value.

Independent Variable : Play therapy

Dependent Variable : Post-operative pain

3.10. Development and description of the tool

After an extensive review of literature and discussion with the experts the following tools are prepared to collect data.

3.10.1. Development of the tool

The tool is developed after extensive review of literature, internet search and discussion with experts in order to develop guidelines for providing play therapy so as to reduce the post-operative pain in children aged 2-5 years who have undergone abdominal surgeries.

In this study the standardized tool to assess the pain is FLACC behavioral pain assessment scale.

3.10.2. Description of the tool

The study tool consisted of two sections.

Section-A

Socio-economic demographic and specific variable.

Part-A: Consists of socio- economic and demographic variables such as age, sex, education, income, residence, educational status of the parents and physical parameters. The data was obtained from the parents through a semi-structured interview schedule .Physical parameters were taken by the investigator.

Part-B: Includes the items pertaining to the specific variables such as anesthesia, post- operative sedation and analgesics .The information regarding specific variables are obtained from the hospital records.

Section-B

FLACC Behavioral pain scale assessment scale

Merkal et al 1997 developed FLACC behavioral pain assessment to assess post-operative pain in children .The acronym "FLACC " represents five categories (ie) Face ,legs ,activity, cry and CONSOL ability .The pain was assessed using observation method .Responses in each category are scored between 0 and 2 for a maximum total score of 10.

SCORING KEY

Pain Behavioural Score	***Interpretation***
0-3	Mild pain
4-7	Moderate pain
8-10	Severe pain

3.10.3. Content validity (Testing of the tool)

VALIDITY OF THE TOOL

Content validity

Polit (1999), says the validity refers to the degree to which an instrument measures what it is supposed to be measuring. The three types of validity are content validity, criterion validity and construct validity.

Content validity is concerned with the sampling adequacy of items for the construct. The present tool was validated by 1 medical expert and 2 nursing experts. The experts were requested to check for the relevance, sequence, language significance, relatedness and content of the tool. Appropriate modifications were made in both Part A and B as per the suggestions given by the experts. The items with 100% agreement were included in the questionnaire. The tool was then translated into Tamil by language experts. The language validity was established by retranslating the tool into English

3.11. Ethical consideration

Ethical consideration refers to a system of moral values that is concerned with the degree to which research procedures adheres to professional ,legal and social obligation to study participation.

The study, objective, intervention and data collection procedure were approved by Ethical Committee of M.M.C, Chennai and Head of the Department, Institute of Child Health and Hospital for children, Chennai . Informed consent was obtained from each study participant after giving full information about the study. Anonymity was assured to each participant and maintained by the researcher,

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3.12. Pilot study

The pilot study is a preliminary research conducted to test the elements of research design before the commencement of an actual full scale study. It is a small version or trial run of the major study.

The setting selected for pilot study was post operative ward in Institute of Child Health, Chennai. (221 for control group and S.I.C.U for experimental group. After obtaining administrative permission from the authorities concerned, the researcher selected 12 children as study sample, 6 in experimental and 6 in control group by convenience sampling.

Pre test was conducted for both the experimental and the control group. Play therapy was administered to experimental group and finally post test was conducted for both experimental group and control group.

The study was found to be feasible with regard to time, the availability of subjects and the co-operation of samples. It also provides information regarding reliability, feasibility and practicability of the designed methodology. The average time taken for the play therapy in 30 minutes.

3.13. Reliability of the tool

Reliability refers to the accuracy and consistency of the measuring tool. Reliability in the original tool was estimated using co-relation co-efficient.

In the present study the reliability of the structured observation scheduled was established by inter-rater reliability. The tool was administered simultaneously by two persons who were equally exposed to the caring of children and research.

3.14. Data collection procedure

Data collection is gathering of information from the sampling units The study was done for the specified four weeks, from 15th July to August 21st.

Formal permission was obtained from the Director, the Medical Registrar and the Head of the Department of Surgery.

The children who have undergone abdominal surgeries and available on the third post operative day were selected based upon sample selection criteria and convenience sampling method. A total of 60 children who have undergone abdominal surgeries were recruited in the study; 30 in the experimental group for the first two weeks and 30 in the control group during the next two weeks.

The purpose of the study and the proposed play therapy was explained to the parents.

Information regarding socio-economic and demographic variables are obtained by semi structured interview schedule from the parents and physical parameters were measured by the investigator. Information regarding the specific variables are obtained by reading the case sheets. The time duration taken to gather all these information took 15 minutes.

The investigator made three pain behavioural observations in the experimental group with FLAAC behavioural pain assessment scale. First observation before play therapy (0_1), second observation during play therapy (0_2) and third observation after paly therapy (0_3). The same procedure was followed in the control group but without administering play therapy (0_4). Second observation after an interval of 15 minutes (0_5) and third observation was done in the next 15 minutes (0_6). In both experimental and control group the observation was made with an interval of 30 minutes. The time taken for each observation in 5 minutes.

Play therapy was administered for a duration of 30 minutes. The type of play was selected according to the age and interest of the child by the investigator. Introduction and clarification regarding the play was done when required.

The toy which is selected for a child during that particular day will not be selected for the next child during the same day. Most of the toys used were made up of plastic and rubber items. So they are washable. The investigator, at the end of the day washes all the play materials which was used by the children by using soap and running water and immersing in antiseptic solution for the required time. Then the investigator dries the play materials under sunlight. The same procedure is repeated until the required samples have taken.

3.15. Data entry and analysis

Data were collected and analyzed by using descriptive statistics and inferential statistics. Data analysis enables the researcher to reduce, summarize, organize, evaluate , interpret and communicate numerical information to obtain answer to research questions. Data analysis were done based on the subjective of the study .The data were analyzed using the descriptive statistics like frequency distribution, percentage and interferential statistics like standard deviation, chi square test ,independent t-test .The significant finding was expressed in the form of tables and figures. $p<0.05$ was considered statistically significant.

FIGURE-2
SCHEMATIC REPRESENTATION OF RESEARCH DESIGN

CHAPTER – IV
DATA ANALYSIS AND INTERPRETATIONS

Data analysis is a method of organizing data in such a way that the research questions can be answered. Interpretation is the process of making sense of the results and of examining the implications of the findings within a broader context.

This chapter deals with the analysis and interpretation of data collected on post operative pain among children who have undergone abdominal surgeries.

ORGANISATION OF THE DATA

The findings of the study were grouped and analysed under the following sections.

Section - A Demographic variables of the children

Section –B Physical parameters of the children

Section-C Intensity of the pain

Section-D Observation before, during and play therapy

Section-E Association of pain score

TABLE-3:

Demographic Variables of Children in percentage

S. No	Demographic Variables	Experimental Group (N=30)		Control Group (N=30)	
		Frequency	in %	Frequency	in %
1.	Age				
	2-3 years	9	30	7	23.3
	3-4 years	16	53.3	17	56.7
	4-5 years	5	16.7	6	20
2.	Sex				
	Male	25	83.3	21	70
	Female	5	16.7	9	30
3.	Educational Status				
	Schooling	13	43.3	11	36.7
	No Schooling	17	56.7	19	30
4.	Income of Family				
	uptoRs.1000	3	10	3	10
	Rs.lOOlto2,000	7	23.3	7	23.3
	Rs.2,001 to 3000	12	40	12	40
	Rs.3001 & above	8	26.7	8	26.7
5.	**Residence**				
	Rural	19	63.3	15	50
	Urban	11	36.7	15	50
6.	**Education of Father**				
	Illiterate	10	23.3	2	6.7
	Primary	7	23.3	7	23.3
	Secondary	10	40	15	50
	Graduate	3	13.3	6	20.0
7.	**Education of Mother**				
	Illiterate	13	43.3	12	40
	Primary	5	16.7	8	26.7
	Secondary	8	30	8	26.7
	Hr. Secondary	4	10	2	6.7

From the above table, it is clear that 53.3% of children in the experimental group belongs to the age group of 3-4 years, whereas in control group 56.7% of children belongs to the age group of 4-5 years.

Higher proportion of children in the experimental group (83.3%) and control group (70%) were males.

Educational status and income of the family almost coincides in both experimental and control groups.

Majority of the children in the experimental group (63.3%) were from rural area whereas in control group (50%) were from urban area.

Majority of the parents in both experimental and control groups were Higher Secondary & illiterates.

Table-4: Physical parameters of children

Parameters are defined as the variables responsible for the pain tolerance in children apart from analgesics.

The physical well being may help in quick recovery and healing.

TABLE-4: Physical parameters of children

S. No	Physical Parameters	Experimental Group (N=30)		Control Group (N=30)	
		Frequency	in %	Frequency	in %
1.	**Weight of the Child**				
	Below 13 kg	11	36.7	9	30
	l3kg to l7 kg	14	46.7	15	50
	l7kg to 2o kg	5	16.7	6	20
2.	**Height of the Child**				
	Below 90 cm	7	23.3	6	20
	90 cm to 100 cm	18	60	19	63.3
	l00 cm to 110 cm	5	16.7	5	16.7
3.	**Head circumference of the child**				
	Below 48 cm	13	43.3	10	33.3
	48 cm to 50 cm	12	40	14	46.7
	50cmto52cm	5	16.7	6	20
4.	**Chest circumference of the child**				
	Below 50 cm	12	40	10	33.3
	50 cmto 54 cm	12	40	16	53.3
	54cmto58cm	6	20	4	13.3
5.	**Mid-arm circumference of the child**				
	Below 140 mm	9	30	7	23.3
	140 mm to 150 mm	9	30	11	36.7
	150 mm to 160mm	5	16.7	7	23.3
	160 mm and above	7	23.3	5	16.7

The above table reveals that in the experimental group 46.7% of children were weighed between 13kg to 17kg, whereas in the control group 50% of children weighed below 17 kg.

Majority of the children (60%) were between the height of 90-100 cm in the experimental group, whereas in the control group 63.3% of the children were between the height of 90 to 100 cm.

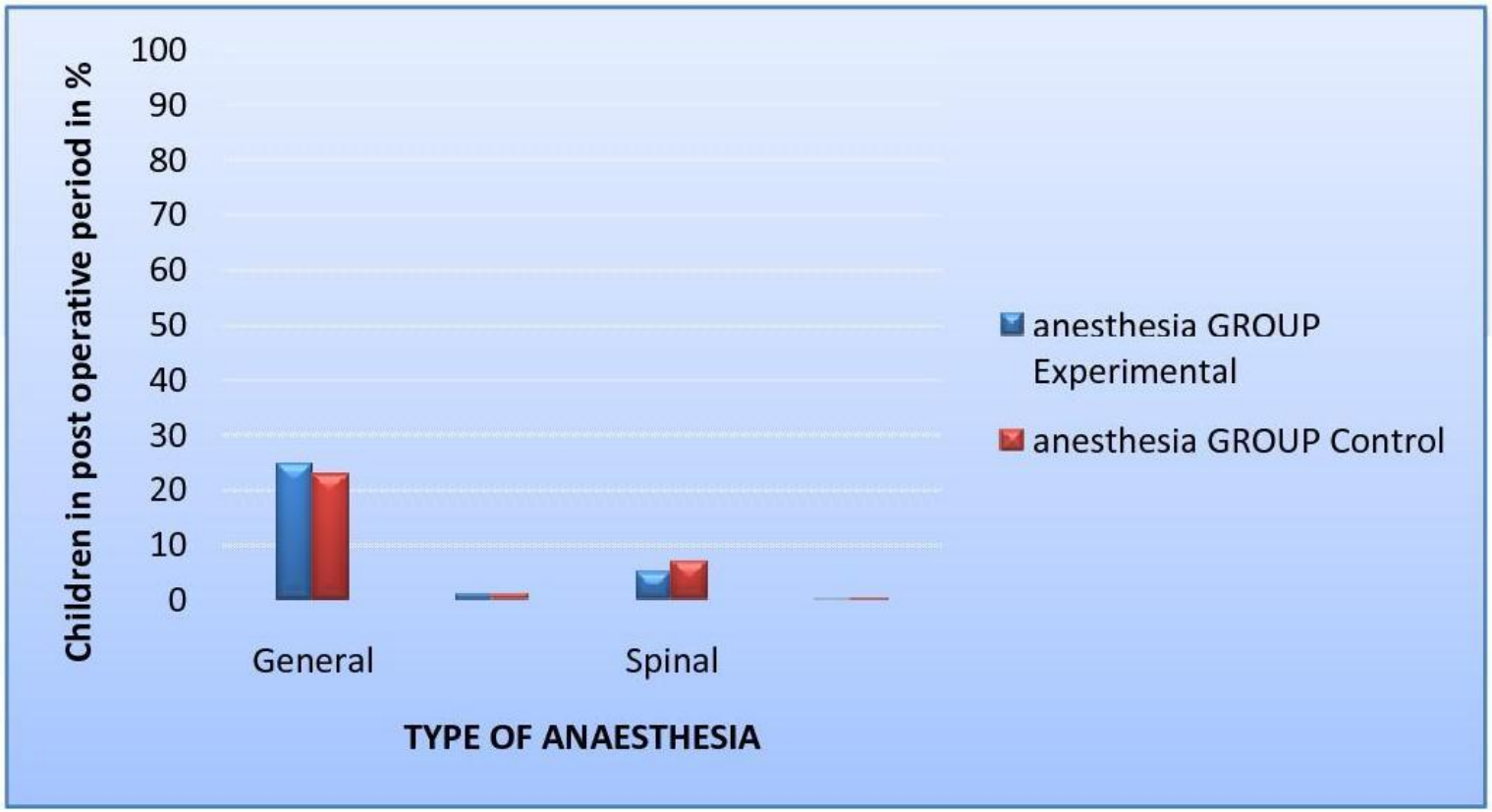
Head circumference in both the groups almost coincides with each other.

Nearly 40% of the children in the experimental group have the chest circumference between 50 to 54cm, whereas in control group 53.3% of the children have the chest circumference between 50 to 54cm.

Midarm circumference of children in the experimental group and control group coincides with each other. Majority of the children have midarm circumference less than the normal.

FIGURE – 3

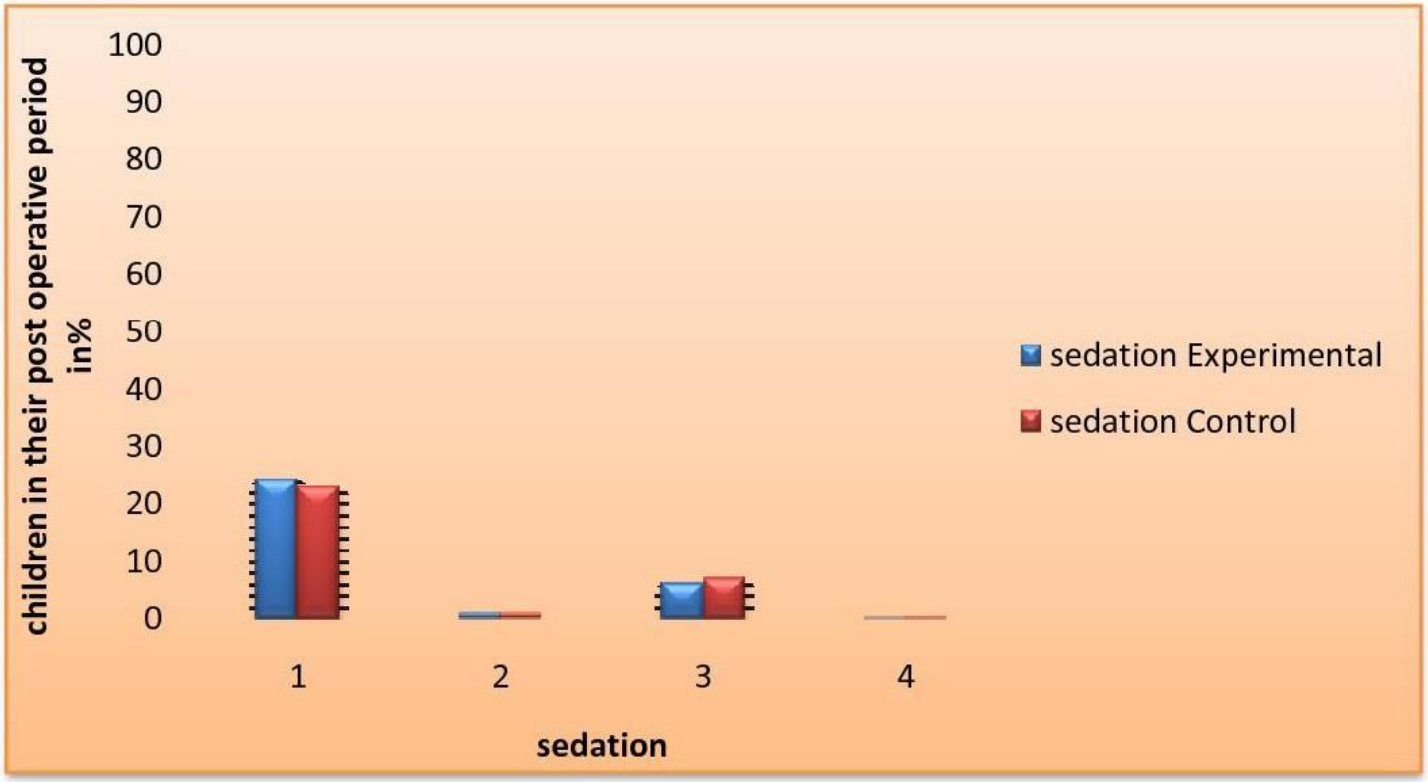
Distribution of Children with regard to type of anaesthesia in both groups



The above figure reveals that all the children were given general anaesthesia in both experimental and control room.

Figure – 4

Distribution of Children with regard to post operative sedation in both groups



The above figure reveals that no child received post operative sedation in both experimental and control group

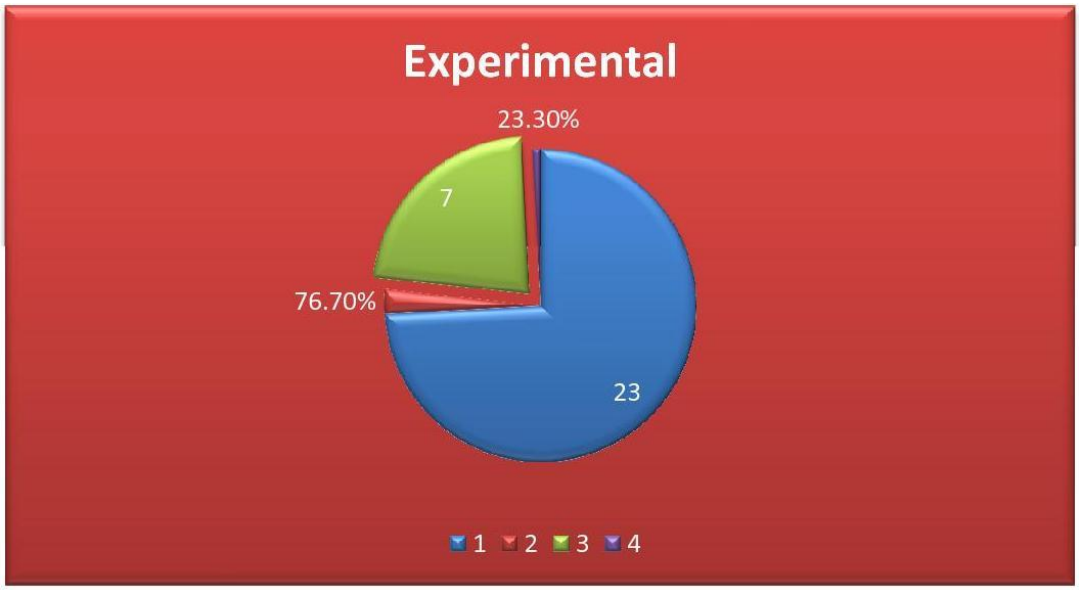
Figure – 5

Distribution of Children with regard to analgesics in experimental groups

Analgesics were given 76.7% experimental group

Figure – 6

Distribution of Children with regard to analgesics in control room



Analgesics were given 76.7% control room

Table - 5:

Intensity of post operative pain score in children among experimental and control groups before administering play therapy

Intensity of Pain	Pain Score	Experimental Group (N=30)		Control Group (N=30)	
		Frequency	%	Frequency	%
Mild	0	0	0	0	0
	1	0	0	3	10
	2	0	0	3	10
	3	4	13	3	10
Total mild	0 to 3	4	13	9	30
Moderate	4	3	10	2	8
	5	4	13	3	10
	6	8	32	7	28
	7	4	16	3	12
Total moderate	5 to 7	19	71	15	58
Severe	8	4	16	4	16
	9	3	12	2	8
	10	0	0	0	0
Total severe	8 to 10	7	28	6	24

The above table reveals that the intensity of pain is similar in both experimental group and control group except mild pain.

Table-6:

Intensity of post operative pain score in children among experimental and control group during the time of administering play therapy

Intensity of Pain	Pain Score	Experimental Group (N=30)		Control Group (N=30)	
		Frequency	in %	Frequency	in %
Mild	0	3	10	0	0
	1	5	20	3	10
	2	6	24	3	10
	3	3	10	4	16
Total mild	0 to 3	17	64	10	36
Moderate	4	6	24	4	16
	5	2	6	3	10
	6	3	10	6	24
	7	2	6	6	24
Total moderate	5 to 8	13	46	19	74
Severe	8	0	0	1	4
	9	0	0	0	0
	10	0	0	0	0
Total severe	8 to 10	0	0	1	4

Above table shows that in the experimental group majority of the children (64%) had mild pain and no child had severe pain, where as in the control group higher proportion of the children (74%) had moderate pain and 4% of children had severe pain.

This variation and shift in the intensity of pain between the two groups shows the effectiveness of play therapy in reducing post operative pain among children.

Table-7:

Intensity of post operative pain score in children among experimental and control group after administering play therapy

Intensity of Pain	Pain Score	Experimental Group (N=30)		Control Group (N=30)	
		Frequency	in %	Frequency	in %
Mild	0	0	0	2	6
	1	0	0	0	0
	2	5	20	4	13
	3	4	13	5	20
Total mild	0 to 3	9	33	11	39
Moderate	4	6	24	0	0
	5	6	24	6	24
	6	5	16	4	13
	7	4	13	5	20
Total moderate	5 to 7	21	77	15	57
Severe	8	0	0	3	12
	9	0	0	1	4
	10	0	0	0	0
Total severe	8 to 10	0	0	4	16

The above table shows that in the experimental group, majority of the children (77%) had moderate pain which is due to the cessation of play therapy in this group. No significant shift in the intensity of pain was observed in the control group.

Table - 8:

Post Operative pain score of children among Experimental group and control group before and during play therapy observations

Observation	Experimental Group (N=30)			Control Group (N=30)		
	M.P.B.S	**SD**	**'t' value**	**M.P.B.S**	**SD**	**'t' value**
Before Play therapy	64	1.68	t7.37 is significant as the table value is 2.0 for d.f=48 at P<0.05	5.04	2.41	t=0.059 is not significant as the table value is 2.0 for d.f=48
During Play therapy	2.84	1.91		5.08	2.27	

Statistical Test-1

H_0 There will be no difference on the intensity of post operative pain score among children in experimental group before and during play therapy.

Inference

Here **H_0** is rejected. From the above test, it is seen that the 't' value (7.37) is more than the table 't' value (2.0) for d.f.48 N1+N2-2). Hence there is a significant difference between the intensity of post operative pain score observed in experimental group before and during play therapy. Therefore it is inferred that play therapy has proved an important role in reducing the intensity of pain among children during the post operative period.

Statistical Test-2

H_0 = There will be no significant difference on the intensity of post operative pain score among children in control group before and during play therapy.

Inference

Here H_0 is accepted. From the above test, it is seen that the 't' value (0.59) which is less than the table 't' value (2.0) for df 48 (N1+N2-2), Hence there is **no significant** difference between the intensity of post operative pain score observed in **control group** before and during play therapy. Therefore it is inferred that when there is no play proved there is no chance for the reduction of pain among children during the post operative period without any drug intervention.

Table-9

Observation	Experimental Group (N=30)			Control Group (N=30)		
	M.P.B.S	SD	't' Value	M.P.B.S	SD	't' Value
During play therapy	3.9	2.02	t = 5.565 is significant as the table value is 2.0 for d.f=58 at p<o.05	6.90	3.36	t=0.059isnot significant as the table value is 2.0 for d.f=58
After play therapy	5.4	2.86		6.2	3.5	

Post Operative pain score of children among experimental and control group between observations during and after play therapy

Statistical Test-3

H_0 = There will be no significant difference on the intensity of post operative pain among children in experimental group during and after play therapy.

Inference:

Here H_0 is rejected. In the above test it is seen that the 't' value (5.565) is more than the table t' value (2.0) for df.58 (N1+N2-2). Hence there is a significant difference between the intensity of post operative pain score of children observed in the experimental group during and after play therapy**.** Therefore it is inferred that after the cessation of play therapy, the intensity of post operative pain is increased among children in the experimental group.

Statistical Test-4

H_0 = There will be no significant difference on the intensity of post operative pain of children who had undergone abdominal surgeries between observations in control group during and after play therapy.

Inference :

Here H_0 is accepted. In the above test it is seen that the t' value (0,059) is less than the table 't' value (2.0) for df.58 (N1+N2-2). Hence there is no significant difference between the intensity of post operative pain score of children observed in the control group during and after the play therapy. Therefore is inferred that the intensity of pain felt is continued for the children who were not under play therapy.

Table – 10

Reduction of pain from moderate to mild and severe to moderate while observations made before, during and after play therapy

Group	Intensity of pain	Total number of children					
		Before		During		After	
		No.	%	No.	%	No.	%
Experimental group (N=30)	Mild	4	13	18	72	10	40
	Moderate	16	64	12	48	20	80
	Severe	10	33	0	0	0	0
Control group (N=30)	Mild	7	35	10	40	11	44
	Modern	15	60	17	68	12	48
	Severe	8	32	3	12	7	28

The above table reveals that in the experimental group before play therapy 33% of children were suffering from severe pain. But during play therapy majority of the children (72%) had mild pain and no child had severe pain. After play therapy higher proportion of children (80%) had moderate pain. There is a significant shift in the intensity of pain from moderate to mild and severe to moderate or mild due to the effect of play therapy.

It is clear that in the control group, before play therapy 32% of children had severe pain. During play therapy still 10% of children had severe pain due to the lack of play therapy in this group. After play therapy 48% of children had moderate pain.

Table – 11

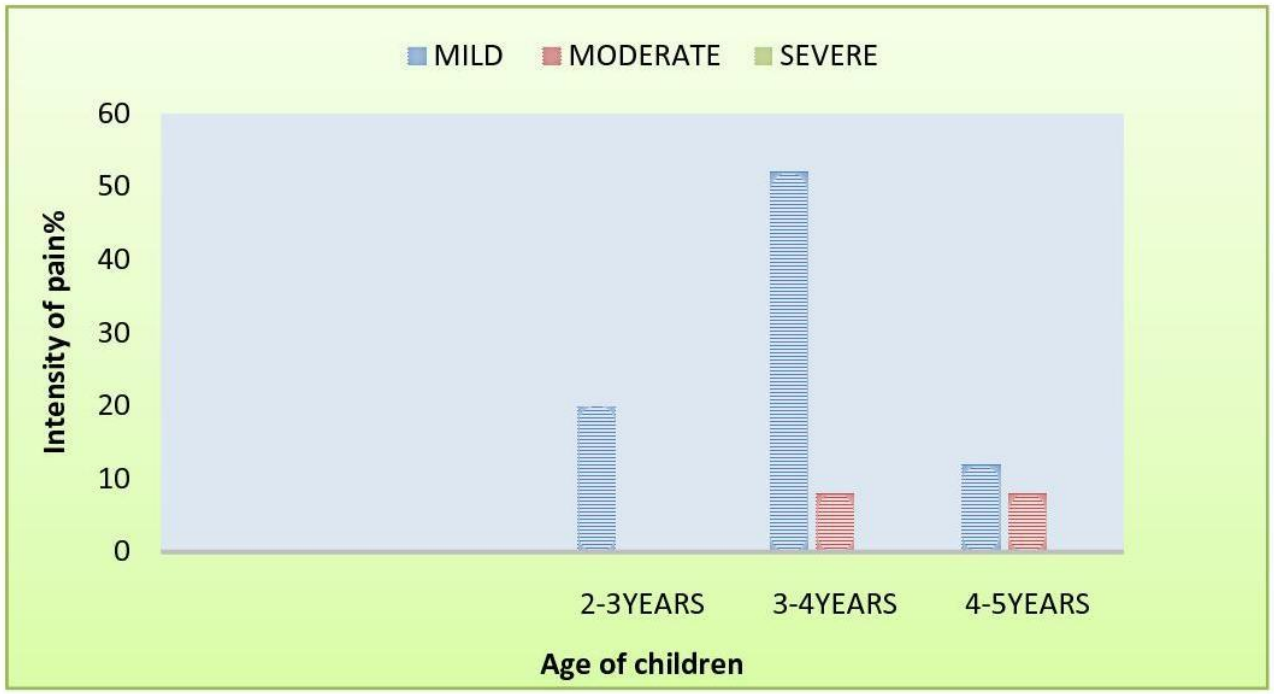
Association of pain score with regard to age, sex and educational status in experimental and Control groups during in play therapy

S.No.	Demographic and socio-economic variables	Experimental			Group		
		Total Pain Score	Mean	SD	Total Pain Score	Mean	SD
1	Age 2-3 Years	21	4.2	2.28	33	4.71	2.29
	3-4 Years	39	2.6	1.72	25	5.5	1.29
	4-5 Years	11	2.2	1.79	66	1.71	2.09
2	Sex Male	55	2.54	1.77	76	4.47	2.12
	Female	15	5.0	1.73	45	5.62	1.5
3	Educational Status Schooling	16	2.0	1.6	39	3.55	1.51
	No Schooling	55	3.24	1.95	82	5.86	1.74

The above table reveals that there is significant difference in mean pain score between different age groups, between male and female, schooling and non-schooling children. It is also seen that the overall mean pain score in the experimental group is much less than that of control group.

Figure – 7 :

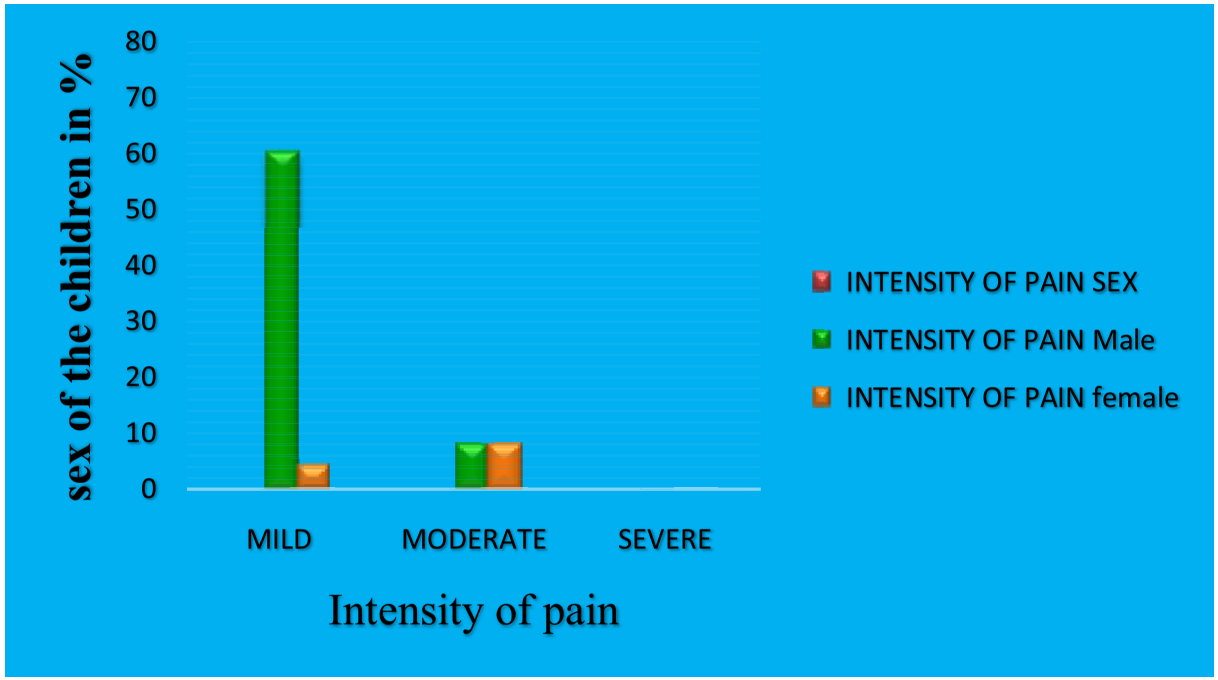
Association between age of children and pain behavioural scores during play therapy in experimental group



It is seen in the above figure that older children mostly felt mild pain than younger children which reveals that as the age increases, the pain tolerance also increases

Figure – 8 :

Association of pain behavioural scores with the sex of the children during play therapy in experimental group



The above figure reveals that female children have less pain tolerance than male children who have under gone abdominal surgeries

Table – 12

Comparison of pain score in experimental group and control group during play therapy with regard to physical parameters

S.No.	Demographic and socio-economic variables	Experimental Group (N=30)			Control Group (N=30)		
		Total Pain Score	Mean	SD	Total Pain Score	Mean	SD
1	**Weight for age** Adequate	8	2.67	3.06	12	4.0	2.65
	Normal	25	3.13	1.96	74	5.69	1.97
	Low	38	2.71	1.77	35	3.88	1.36
2	**Height of the Child** Below 90 cm	45	3	1.65	30	5.0	1.55
	90 cm to 100 cm	16	4	2.94	35	7.0	0.71
	100 cm and above	10	2	1.22	56	4.0	1.92
3	**Body Mass Index** <16	23	2.56	1.81	121	4.84	1.99
	>=16	48	3.0	2.0	-	-	-

The above table shows that the children with adequate weight, height and body mass index felt less pain than children below normal physical parameters.

Table – 13

Association between play therapy and pain reduction

Group	Children		Total
	With Pain Reduction	With no Pain Reduction	
Play therapy (Experimental Group) (N=30)	25	5	30
No play therapy (Control Group) (N=30)	10	20	30
TOTAL	35	25	60

In the above table, the calculated (x^2)= 15.42 and the table value for 1 df at (p=001) is 12.90. Therefore it can be inferred that the play therapy has got effect in reducing the pain in children in the postoperative period. The children without play therapy intervention in the postoperative period will suffer with 3 times more pain than experimental group as the Relative Risk is 3.29.

CHAPTER V
SUMMARY OF RESULTS

The study was done to assess the effectiveness of play therapy in reducing post-operative pain among children aged 2-5 years who have undergone abdominal surgeries at institute of child health and hospital for children, Chennai.

Quasi experimental design with quantitative research approach was used. Conceptual framework adopted in the present study was modified Roy's adaptation Model. The sample size was 60. (30 in experimental group & 30 in control group). The samples were selected for the study by using convenient sampling technique.

The development of the tool was based on the objectives of the study, review of literature and the opinion from the experts. The data collection was done for a period of one month from 16.7.2015 to 15.8.2015. Parents of post-operated children were interviewed by the tool. Informed consent was obtained from the parents of all the samples. The samples were divided into two groups. The 30 children in experimental group were given play therapy and the remaining were not given the same. The investigator made three pain behavioural observations in the experimental group with FLAAC behavioural pain assessment scale. First observation before play therapy (0_1), second observation during play therapy (0_2) and third observation after paly therapy (0_3). The same procedure was followed in the control group but without administering play therapy (0_4). Second observation after an interval of 15 minutes (0_5) and third observation was done in the next 15 minutes (0_6). In both experimental and control group the observation was made with an interval of 30 minutes. The time taken for each observation in 5 minutes.

Play therapy was administered for a duration of 30 minutes. The type of play was selected according to the age and interest of the child by the

investigator. Introduction and clarification regarding the play was done when required.

5.1 Major findings of the study:

With regard to the demographic variables of the children,

Assessment reveals that 80% of children were male, 62% were non-school going children and most of the children weigh below 13kg and head and chest circumferences were less than 50cm.

All the children were given general anaesthesia, no child received post-operative sedation and 52% of children in the experimental and 60% of children in the control group received analgesics.

Before play therapy the number of children suffering from moderate to severe pain was 92% in the experimental group. The number of children in the same category among control group was 80%. Based on these findings, the research hypothesis H_1 which was stated that there will be a significant difference in the intensity of post- operative pain among children who have undergone abdominal surgeries experimental and control group in pre-test was rejected.

During play therapy, 60% of children had **mild pain** in the experimental group where as in control group 68% of children were suffering from **moderate pain.** These findings reveal that play therapy reduced the pain perception in the experimental group. Based on these findings, the research hypothesis H_2 which was stated that there will be a significant difference in the intensity of post operative pain among children who have undergone abdominal surgeries between experimental and control group during play therapy was accepted.

After play therapy, 72% of children in experimental group and 48% of children in the control group had moderate pain. Based on these findings, the

research hypothesis H_3 which was stated that there will be a significant difference in the intensity of post- operative pain among children, who have undergone abdominal surgeries between experimental and control group after play therapy was accepted.

The 't' test results shows that there is a significance difference in the pain score before and during play therapy observations among the experimental group. Similarly there is significant difference in the pain score during and after play therapy observations in the same group. From these findings, the research hypothesis H_4 which was stated that there will be significant difference in the intensity of post-operative pain among children who have undergone abdominal surgeries before, during and after play therapy among the experimental group was accepted.

It is found that there is association between age, sex and health status of the children and pain tolerance.

CHAPTER-VI

DISCUSSION

This chapter concentrates on the findings of the study derived from the statistical analysis and its pertinence to the objectives set for the study.

The study has described the effectiveness of play therapy in reducing post operative pain among children aged 2-5years who have undergone abdominal surgeries. The investigator carried out the study in postoperative ward, Institute of child health, Egmore, Chennai-8.

30 children in experimental group and 30 children in control group were selected by using non-probability convenience sampling on the basis inclusion criteria . Interview / Observation schedule was used to collect the information, after getting the validity from experts and after the pre-test in the pilot study. The findings of the pilot study revealed the effectiveness of play therapy in reducing post- operative pain among children.

The data collected were classified into three sections. The first section contains the socio economic and demographic variables and specific variables. The second section contains pain behavioural observation schedule and pain assessment scale. . The third section contains proposed play activities for the children,

The type of play therapy administered for children between the age group of 2-5 years (Marlow and Wongs) were toys, building blocks, cooking utensils, reading stories from a picture book, story-telling, arranging the circles according to colour and size, busy-beads, drawing, painting, clay materials, reading the alphabet or number from charts and finding the wat to home. Among these most of the most children were more involved in playing with toys, building blocks, drawing, painting and arranging the circles according to colour and size.

Data collection was done during the specified four weeks, in the month of September. The data was collected between 7am to 8.30am. The investigator collected the data and coded the responses. The data was verified and entered in the computer for processing.

In this study, majority of the children belonged to the age group of 3-5years. It is seen from the sample that more number of male children were admitted and operated. The reason why the male sex is affected could not be ascertained in this study. Higher proportion of non-school going children were in the sample. This may be due to lack of awareness of the parents to admit their children in schools after the completion of 3years and also due to the income status of the family. Majority of the children have their residence in the rural area. This may be due to more number of referrals from other institutions. Majority of the parents have completed their secondary education in both experimental and control groups.

Majority of the children weighed below thirteen kilogram, fall below the height of 100cm and 50% children have head and chest circumference below 50cm. it may be due to low income status of the family and also due to lack of awareness of balanced diet. It is found in this study that those children whose physical parameters are above (or) normal in the growth chart had more pain tolerance that children who are below the normal in the growth chart. This reveals that health and nutritional status of the children have an impact on the pain perception.

All the children undergone abdominal surgeries were given general anaesthesia. During the span of the post- operative care no sedation is being advised. 52% of children in the experimental group and 60% of children in the control group received regular analgesics (Tab paracetamol / Tab Jonac) on BD dose basis at around 8.30am and 7.30pm.

DISCUSSION BASED ON THE OBJECTIVES

- **The first objective of the study was to assess the intensity of post operative pain among children who have undergone abdominal surgeries, before, during and after administering play therapy in experimental and control groups.**

The investigator used FLACC behavioural pain assessment scale which consist of face, legs, activity, cry and CONSOL ability in order to measure the intensity of pain felt by the children before, during and after play therapy.

Before play therapy, majority of the children in the experimental group (92%) and control group (80%) were suffering from moderate and severe pain. this may due to lack of diversional activities given to the children in order to reduce the pain perception.

During play therapy, higher proportion (60%) children in the experimental group were suffering from mild pain. But at the same time majority (68%) of the children in the control group had moderate pain which revealed that due to lack of play therapy, no significant reduction in the intensity of pain was observed in this group. The same findings was observed by Maheshwari (2002) who conducted a study to assess the effectiveness of play therapy in post- operative pain among children who had undergone miner surgeries and by Lizzie (1995) who conducted a study to assess the effectiveness of play therapy in the reduction of post -operative pain in children following major surgeries.

After play therapy, majority (70%) of the children in the experimental group had moderate pain. such significant differences in the intensity of pain was not observed in the control group. These findings revealed that after the cessation of play therapy, the children in the experimental group could appreciate pain.

Therefore the effectiveness of play therapy was found statistically significant on comparison of pain score before, during and after play therapy.

- **The second objective of the study was to determine the effectiveness of play therapy on post- operative pain among children who have undergone abdominal surgeries in experimental and control groups.**

There is significant difference on the intensity of post- operative pain score among children in experimental group before and during play therapy and also between observations during and after play therapy. But in the control group there is no significant difference on the intensity of post- operative pain score among children before and during play therapy and also between observations during and after play therapy.

It is also clear that there was a shift in the intensity of the pain from moderate to mild and severe to moderate or mild during play therapy in the experimental group. These findings revealed the effectiveness of play therapy in reducing the pain perception.

- **The third objective was to determine the association in post - operative pain and play therapy among children who have undergone abdominal surgeries regarding selected variables such as age, sex, educational status and physical parameters.**

The investigator tried to find out any association between the socio economic, demographic variables with pain score and play therapy. It is found that there is significant difference in mean pain score between different age groups, schooling and non- schooling children. The intensity of pain felt by older age children was less than that of younger age children. Female children found to have more pain intensity than male children.

Children with adequate weight, height and body mass index felt less pain than children below the normal. Therefore, it is clear that age, sex and health status of the children will have an influence on the pain tolerance. Hence, this study revealed that play therapy when used in combination with analgesics was found to be more effective in reducing post- operative pain than using analgesic alone.

CHAPTER – VII

CONCLUSION AND RECOMMENDATION

7.1 Implications of the study

The study had implications, guidelines and suggestions for nursing practice, nursing education, nursing administration and nursing research.

Nursing practice

1. These results will help the nursing personnel to estimate the intensity of post- operative pain among children.

2. Nursing personnel can use play therapy on various age group of hospitalized children.

3. Play therapy is used as a diversion therapy and helps in reducing the frequency of administration of analgesics.

4. The nurses should realize that it is very important to help the children to adjust with hospitalization by giving play activities.

5. Play therapy helps the nurses to get co-operation from the children while doing procedures in the hospital.

6. Play therapy helps the nurse in increasing the power of observation.

Nursing education

1. Play therapy is a ‘scale’ to access the growth and development of the children.

2. Play therapy has a vital role in physical, psychological and social development of the child.

3. The curriculum of paediatric nursing should enable nursing students to use play materials or play therapy to children during their nursing procedure in the ward.

4. Helps the nursing faculty to give more importance for assessment of post- operative pain.

5. Play therapy may be studied more scientifically and used as a specific nursing invention.

6. In service education programme should be conducted that will help the nurses to gain more knowledge on play therapy and its advantages.

7. The study also draws attention towards the fact that there is a need to educate the parents and nursing personnel regarding the importance of play therapy.

8. Nurse educators should give proper instruction regarding selection of play materials which do not cause any injury to the children.

Nursing Administration

1. The study assists the nursing administrative authorities to appreciate, initiate and carry out the play therapy or play activities as a diversional therapy for hospitalized children.

2. The nurse administrator must organize a play room or play therapy unit for hospitalized children in the inpatient / outpatient department.

3. Administration must provide adequate play materials for effective implementation of play therapy to hospitalized children.

4. Provision should be made for money in the budget for various activities like in service education, advanced training, adequate play materials and for conducting research in this field.

5. Administration should take the initiative to organize in service education programmes for nursing personnel to update their knowledge and professional skills in area of play therapy and pain control.

Nursing Research

1. The study will be a valuable reference material for future researchers.
2. The finding of the study would help to expand the scientific body of professional knowledge upon which further researchers can be conducted.
3. Large scale studies can be conducted in consideration of other contributing variables.
4. This study helps the nurse researcher to apply play therapy on hospitalized children during any procedure.

7.2 Limitations

1. The sample taken was only sixty for experimental group thirty and control group thirty.
2. Sample taken were only children between the age group 2-5 years who have undergone abdominal surgeries by using convenience sampling.
3. Study was limited only to the children who were on third post-operative day.
4. 4..FLACC pain observation tool was the only tool used for data collection, perfect control on use of other toys could not be established in the control group.

7.3 Recommendations for further study

1. A similar study can be replicated on a large scale.
2. A study can be conducted on various aspects like painful procedures, injection, intravenous infusion, dressing and blood sampling, etc.,
3. A similar study can be conducted in the hospital with play therapy set up.

4. A study can be conducted by using different pain assessment scale for children.

5. A comparative study can be conducted between the private setup and the government setup.

6. A study can be done by comparing the two different pain assessment scale for children.

7. The study can be on the children above 5 years of age.

8. The study can be carried out in children following a particular type of surgery.

9. The study can be done to find out the differences in the intensity of pain between major and minor surgeries.

10. The study can be done to find out which type of play material is more effective to divert the children.

11. The study can be done by increasing the duration of play therapy i.e. more than 1 hour to find out the effect in reducing post- operative pain.

12. The study can be done on children who are psychologically ill.

Conclusion

Education in **evidence based care** gives the opportunity to nurses to improve their ability to use theoretical knowledge in practice.

Post operative pain refers to the discomfort and distress experienced by an individual child after a surgical intervention.

Play therapy is the opportunity provided for the children to manipulate, create, draw, interact and involve themselves with selected activities or objects (i.e) toys.

Thus, this study includes the calculated (x^2)=15.42 and the table value for 1 df at (p=.001) is 12.90. Therefore it can e inferred that the play therapy has got effect reducing the pain in children in the post operative period.

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INSTITUTIONAL ETHICS COMMITTEE
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CERTIFICATE OF APPROVAL

To
Mrs. B.CHITRA
M.Sc., (Nursing)
College of Nursing
Madras Medical College,
Chennai – 600 003.

Dear Mrs. B.CHITRA ,

The Institutional Ethics Committee has considered your request and approved your study titled **A STUDY TO ASSESS THE EFFECTIVENESS OF PLAY THERAPY IN REDUCING POST-OPERATIVE PAIN AMONG THE CHILDREN AGED 2-5 YEARS WHO HAVE UNDERGONE ABDOMINAL SURGERIES IN INSTITUTE OF CHILD HEALTH AND HOSPITAL FOR CHILDREN,EGMORE.**
No.10102014.

The following members of Ethics Committee were present in the meeting held on 21.10.2014 conducted at Madras Medical College, Chennai-3.

1. Dr.C.Rajendran, M.D.,	: Chairperson
2. Dr.R.Vimala, M.D., Dean, MMC, Ch-3	: Deputy Chairperson
3. Prof.B.Kalaiselvi, M.D., Vice-Principal, MMC, Ch-3	: Member Secretary
4. Prof.R.Nandhini, M.D., Inst.of Pharmacology, MMC	: Member
5. Prof.K.Ramadevi, Director i/c, Inst.of Biochemistry, MMC	: Member
6. Prof.Saraswathy, M.D., Director, Pathology, MMC, Ch-3	: Member
7. Prof.S.G.Sivachidambaram, M.D., Director i/c, Inst.of Internal Medicine, MMC	: Member
8. Dr.Raghumani, M.S., Professor of Surgery, MMC	: Member
9. Thiru S.Rameshkumar, Administrative Officer	: Lay Person
10. Thiru S.Govindasamy, B.A., B.L.,	: Lawyer
11. Tmt.Arnold Saulina, M.A., MSW.,	: Social Scientist

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

31/10/14

Member Secretary, Ethics Committee

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that a tool prepared by **Ms.B.Chitra**, studying M.Sc.Nursing II year, College of Nursing, Madras Medical College, undertaking a Research study on **"A STUDY TO ASSESS THE EFFECTIVENESS OF PLAY THERAPY IN REDUCING POST-OPERATIVE PAIN AMONG THE CHILDREN AGED GROUP OF 2-5 YEARS WHO HAVE UNDERGONE ABDOMINAL SURGERIES, IN INSTITUTE OF CHILD HEALTH, EGMORE, CHENNAI – 8"** has been validated by me and is found to be valid upto date and she can proceed with this tool to conduct the main study.

SIGNATURE WITH SEAL

Name : S.V. SENTHIL NATHAN

Designation :

Date :

Place :

Senior Civil Surgeon
Institute of Child Health and
Hospital for Children
Egmore, Chennai-600 008

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SIGNATURE WITH SEAL

Name : Mrs. Mahiba Janice.J

Designation : Lecturer

Date : 15.07.15

Place : Chennai - 69

MADHA COLLEGE OF NURSING
15 JUL 2015
CHENNAI - 600 069

From

Mrs.B.Chitra,
M.Sc. (N) II year,
College of Nursing,
Madras Medical College,
Chennai - 600003.

To

The Director,
Institute of child health and hospital for children,
Egmore ,
Chennai .08

Through Proper Channel

Respected Sir,

Sub: Requesting for permission to conduct a nursing research study-regarding

I B.Chitra.M.sc Nursing II year, College of Nursing, Madras Medical College, request you to kindly grant me permission to conduct nursing research study on the topic **'A STUDY TO ASSESS THE EFFECTIVENESS OFPLAY THERAPY IN REDUCING POSTOPERATIVE PAIN AMONG THE CHILDREN AGED 2 – 5 YEARS WHO HAVE UNDERGONE ABDOMINAL SURGERIES IN INSTITUTE OF CHILD HEALTH AND HOSPITAL FOR CHILDREN,EGMORE".**As partial fulfilment of dissertation study for the degree of Master of Science in Nursing.

I assure you that it will not interfere with the routine activities of the study settings as well as keep confidentiality and anonymity of each children.

Thanking you,

Place: CHENNAI-3

Yours obediently

Time: 1-7-15

B. Chitra

(B.CHITRA)

1-7-15

Director and Superintendent
Institute of Child Health and
Hospital for Children
Egmore Chennai-600 008

APPENDIX A

1NTERV1EW / OBSERVATION SCHEDULE OF CHILDREN WHO HAVE UNDERGONE ABDOMINAL SURGERIES

SECTION-I

INSTRUCTION

This section seeks information regarding socio economic demographic and specific variables of children who have undergone abdominal surgeries. The interviewer is requested to force the question and get the response one by one.

Part - A : Socio-economic and demograph1c variables

1. **Age of the child**
   - a. 2-3 years ☐
   - b. 3-4 years ☐
   - c. 4-5 years ☐
2. **Sex of the child**
   - a. Male ☐
   - b. Female ☐
3. **Educational Status**
   - a. Schooling ☐
   - b. No Schooling ☐
4. **Income of Family**
   - a. Upto Rs. 1,000 ☐
   - b. Rs.1,001-2,000 ☐
   - c. Rs.2,000-3,000 ☐
   - d. Rs. R.3,00 and above ☐

5. **Residence**

   a. Rural ☐

   b. Urban ☐

6. **Education of the father**

   a. Illiterate ☐

   b. Primary ☐

   c. Secondary ☐

   d. Higher Secondary ☐

   e. Graduate ☐

7. **Education of the mother**

   a. Illiterate ☐

   b. Primary ☐

   c. Secondary ☐

   d. Higher Secondary ☐

   e. Graduate ☐

8. **Weight of the child**

   a. 11.8 to 12.7 kg (2 yrs) ☐

   b. 12.5 to 16.5 kg (3 yrs) ☐

   c. 13.5 to 19.5 kg (4 yrs) ☐

   d. 15.4 to 21.4 kg (5 yrs) ☐

9. **Height of the child**

   a. 82.5 to 85 cm (2 yrs) ☐

   b. 90.5 to 101.5 cm (3 yrs) ☐

   c. 95 to 109 cm (4 yrs) ☐

   d. 103 to 115 cm (5 yrs) ☐

10. Head circumference of the child

a. 47.7 cm (2 yrs) ☐

b. 49.9 cm (3 yrs) ☐

c. 50.4 cm (4 yrs) ☐

d. 50.8 cm (5 yrs) ☐

11. Chest circumference of the child

a. 50 cm (2 yrs) ☐

b. 51 cm (3 yrs) ☐

c. 52 cm (4 yrs) ☐

d. 53 cm (5 yrs) ☐

12. Mid arm circumference of the child

a. 184.5 mm (2 yrs) ☐

b. 189.5 mm (3 yrs) ☐

c. 191.5 mm (4 yrs) ☐

d. 212.5 mm (5 yrs) ☐

PART - B : SPECIFIC VARIABLES

1. Type of Anaesthesia

a. General ☐

b. Spinal ☐

2. Post Operative Sedation

a. Yes ☐

b. No ☐

3. Administration of Analgesics

a. Yes ☐

b. No ☐

SECTION – II

PAIN BEHAVIOURAL OBSERVATION SCHEDULE OF CHILDREN WHO HAVE UNDERGONE ABDOMINAL SURGERIES

INSTRUCTION:

This section seeks information regarding pain behavioural through observation of the children who have undergone abdominal surgeries.

PAIN ASSESSMENT SCALE – EXPERIMENTAL GROUP

Sample No.

Categories	**O_1**			**O_2**			**O_3**		
Time									
Score	**0**	**1**	**2**	**0**	**1**	**2**	**0**	**1**	**2**
Face									
Leg									
Activates									
Cry									
Consolability									
Total									
Grade									

O_1 - Pretest

O_2 - During Play Therapy

O_3 - Post Test

PAIN ASSESSMENT SCALE – CONTROL GROUP

Sample No.

Categories	**O_4**			**O_5**			**O_6**		
Time									
Score	**0**	**1**	**2**	**0**	**1**	**2**	**0**	**1**	**2**
Face									
Leg									
Activates									
Cry									
Consolability									
Total									
Grade									

O_4 - Pretest

O_5 - During Play Therapy

O_6 - Post Test

PAIN ASSESSMENT SCALE

Characteristics	0	1	2
Face	Smiles or no particular expression	Not listening to speech or sound	Frowning face and clenching the teeth
Legs	Moves freely without any restrictions	Keep the legs stiff and moves the legs very slowly.	Throwing of legs.
Physical Activity	➢ Actively participates in play activities ➢ Turn towards all directions freely	➢ Refuses to turn towards the operated side. ➢ If a toy is given, holds the toy, but not interested in playing with it.	➢ Remains in same position. ➢ Throws the play material when given to the child.
Cry	The child talks or produces certain sounds in its own language.	➢ The child does not talk or makes sounds. ➢ The child is moaning. ➢ Eyes filled with tears.	➢ The child is crying with mouth fully open. ➢ Tears over the cheeks.
Consolability	When a play material is given to the child, the child starts playing with the material.	The child responds well by applying pressure, massaging and fomentation in the site of pain.	➢ Persistent cry. ➢ Refuse to take feeds ➢ Refuse to participate in play activities

SCORING KEY

Each of the five categories is scored from 0-2, which results in a total score between 0 and 10.

SCORE	GRADE
0-3	Mild Pain
4-7	Moderate Pain
8-10	Severe Pain

இணைப்பு–அ
பிரிவு – 1

பகுதி – அ

சமுதாய–பொருளாதார மற்றும் சொந்த புள்ளி விபரம்

1. **குழந்தையின் வயது**

   (அ) 2-3 வயது

   (ஆ) 3-4 வயது

   (இ) 4-5 வயது

2. **குழந்தையின் பாலினம்**

   (அ) ஆண்

   (ஆ) பெண்

3. **கல்வித்தகுதி**

   (அ) பள்ளிக்குச் செல்பவர்

   (ஆ) பள்ளிக்குச் செல்லாதவர்

4. **குடும்பத்தின் மாத வருமானம்**

   (அ) ரூ. 1000-வரை

   (ஆ) ரூ. 1,001-2000

   (இ) ரூ. 2,001 - 3,000

   (ஈ) ரூ. 3,001 - 4,000

5. **குடியிருப்பு**

   (அ) கிராமம்

   (ஆ) நகரம்

6. **தந்தையின் கல்வித்தகுதி**

(அ) படிக்காதவர்

(ஆ) ஆரம்ப கல்வி

(இ) நடுநிலை கல்வி

(ஈ) மேல்நிலை கல்வி

(உ) பட்டபடிப்பு

7. **தாயின் கல்வித்தகுதி**

(அ) படிக்காதவர்

(ஆ) ஆரம்ப கல்வி

(இ) நடுநிலை கல்வி

(ஈ) மேல்நிலை கல்வி

(உ) பட்டபடிப்பு

8. **குழந்தையின் எடை**

(அ) 11.8 முதல் 12.7கி (2 வயது)

(ஆ) 12.5 முதல் 16.5கி (3 வயது)

(இ) 13.5 முதல் 19.5கி (4 வயது)

(ஈ) 15.4 முதல் 21.4கி (5 வயது)

9. **குழந்தையின் உயரம்**

(அ) 82.5. முதல் 85 செ.மீ (2 வயது)

(ஆ) 90.5 முதல் 101.5 செ.மீ. (3 வயது)

(இ) 95 முதல் 109 செ.மீ. (4 வயது)

(ஈ) 103 முதல் 115 செ.மீ. (5 வயது)

10. **குழந்தையின் தலையின் சுற்றளவு**

(அ) 47.7 செ.மீ (2 வயது)

(ஆ) 49.9. செ.மீ. (3 வயது)

(இ) 50.4 செ.மீ. (4 வயது)

(ஈ) 50.8. செ.மீ. (5 வயது)

11. **குழந்தையின் மார்பக சுற்றளவு**

(அ) 50 செ.மீ (2 வயது)

(ஆ) 51 செ.மீ. (3 வயது)

(இ) 52 செ.மீ. (4 வயது)

(ஈ) 53 செ.மீ. (5 வயது)

12. **குழந்தையின் கையின் சுற்றளவு**

(அ) 184.5 மி.மீ (2 வயது)

(ஆ) 189.5 மி.மீ (3 வயது)

(இ) 191.5 மி.மீ (4 வயது)

(ஈ) 212.5 மி.மீ (5 வயது)

பகுதி – ஆ

குறிப்பிட்ட விபரங்கள்

1. மயக்க மருந்தின் வகை

(ஆ) ஓரிடத்திற்குரிய மயக்க மருந்து

(ஆ) முழுவதுமான மயக்க மருந்து

2. அறுவை சிகிச்சைக்கு பின் தூக்க மருந்து

(ஆ) ஆம்

(ஆ) இல்லை

3. வலியை நீக்கும் மருந்து செலுத்துதல்

(அ) ஆம்

(ஆ) இல்லை

பிரிவு – 2

வலியின் அளவை மதிப்பிடும் அளவுகோல் (பரிசோதிக்கப்பட்ட குழு)

மாதிரி எண்:

வர்க்கம்	O_1			O_2			O_3		
நேரம்									
மதிப்பீடு	0	1	2	0	1	2	0	1	2
முகம்									
கால்கள்									
செயல்பாடு									
அழுகை									
சமாதானம் செய்தல்									
மொத்தம்									
தகுதி									

O_1 - முன்தேர்வு

O_2 - விளையாடும்பொழுது

O_3 - பின்தேர்வு

பிரிவு – 2

வலியின் அளவை மதிப்பிடும் அளவுகோல் (பரிசோதிக்கப்படாத குழு)

மாதிரி எண்:

வர்க்கம்	O_4			O_5			O_6		
நேரம்									
மதிப்பீடு	0	1	2	0	1	2	0	1	2
முகம்									
கால்கள்									
செயல்பாடு									
அழுகை									
சமாதானம் செய்தல்									
மொத்தம்									
தகுதி									

O_4 – முன்தேர்வு

O_5 – விளையாடும்பொழுது

O_6 – பின்தேர்வு

APPENDIX B

SECTION-III

PROPOSED PLAY ACTIVTIES FOR THE CHILDREN

PLAY OBJECT	AGE	SEX	TIME	INSTRUCTION	MATERIAL	PEOPLE INVOLVED
1. Toys	2-8 yrs	M/F	30 min	Ask the child to play with the toy **STEPS :** ➢ Ask the child to select the toy. ➢ Show the child how to play with the toy. ➢ Ask the child to play with the toy and explain the process.	➢ Car ➢ Train ➢ Musical Toys ➢ Toy Telephones	Children and parents
2. Building blocks	2-5 yrs	M/F	30 min	Ask the child to construct a building or form a series of alphabets. **STEPS:** ➢ Show the puzzle to the child ➢ Explain the child how to play with it. ➢ Ask the child to construct a temple, school and houses etc.	➢ Plastic blocks ➢ Square plastic blocks	Children and Parent:
3. Playing with	2-5	M/F	30	Ask the child to play with the cooking	➢ Cooking Utensils.	Children

PLAY OBJECT	AGE	SEX	TIME	INSTRUCTION	MATERIAL	PEOPLE INVOLVED
cooking utensils	yrs		min	utensils. **STEPS:** ➢ Ask the child to select the cooking utensils. ➢ Show the child how to play with the cooking utensils. ➢ Ask the child to play with the utensils and explain the process.		
4. Reading stories from a picture book	2-5 yrs	M/F	30 min	Ask the child to tell a story by using a picture book **STEPS:** ➢ Provide a picture book to the child. ➢ Ask the child to see the pictures in the book. ➢ Ask the child to tell a story related to the pictures.	➢ Picture books	Children
5. Story telling	2-5 yrs	M/F	30 min	Tell a simple story with a simple theme. **STEPS:**	-	Children

PLAY OBJECT	AGE	SEX	TIME	INSTRUCTION	MATERIAL	PEOPLE INVOLVED
				➢ Identify the interest of the child. ➢ Tell a story according to the child's interest.		
6. Arranging the circles according to colour and size	2-5 yrs	M/F	30 min	Provide the circles to the child and instruct how to play. **STEPS:** ➢ Provide circles of different colours and size. ➢ Instruct the child to arrange the circles according to colour or size.	Plastic circles of different colours and size	Children
7. Busy-Beads	2-5 yrs	M/F	30 min	Provide the child busy beads and play with it. **STEPS:** ➢ Provide the rope and beads separately. ➢ Instruct the child how to join the beads through a rope. ➢ Ask the child to play with it.	Busy-beads, Rope	Children
8. Drawing	3-5	M/F	30	Ask the child to draw a picture like cartoons,	➢ Paper	Children and parents

PLAY OBJECT	AGE	SEX	TIME	INSTRUCTION	MATERIAL	PEOPLE INVOLVED
	yrs		min	birds, or like a doctor or nurse. **STEPS:** ➢ Explain to the child what to draw and how to draw. ➢ Provide the child the paper, pencil, and crayons ➢ Ask the child to draw pictures like their house, cartoons or like a hospital or temple.	➢ Pencil ➢ Crayons (or) Colour pencil	
9.Painting	3-5 yrs	M/F	30 min	Ask the child to paint or colour a picture like elephant or any familiar objects **STEPS** ➢ Show the child how to use the paint ➢ Show the child the pictures which they are going to paint ➢ Ask the child to paint the pictures like elephants, bird's and natural scenes, etc.,	➢ H_2O Colour, White paper (or) Drawing book.	Children
l0. Moulding clay	3-5	M/F	30	Ask the child to mould the clay and shape	Clay Material	Children

PLAY OBJECT	AGE	SEX	TIME	INSTRUCTION	MATERIAL	PEOPLE INVOLVED
materials	yrs		min	like a house, boat, birds, animals, etc., **STEPS:** ➢ Show the child how to use the clay. ➢ Ask the child to mould and shape it like a doll, house, boat, animals, birds with colour clays provided.		
11. Reading the alphabet or number from charts	3-5 yrs	M/F	30 min	Show the charts containing alphabets or number to the child and ask to spell it. **STEPS:** ➢ Show the alphabet or number charts ➢ Ask the child to spell it. ➢ If the child has doubt, teach the child,	Alphabets and numerical charts	Child and parents
12. Find the way to home	5 yrs	M/F	30 min	Ask the child to find the way to reach home **STEPS:** ➢ Explain the child how to find the way to reach the home.	➢ Paper ➢ Pencil	Children

இணைப்பு-ஆ

பிரிவு-III

முன் மொழியப்பட்ட குழந்தையின் விளையாட்டு நடவடிக்கைகள்

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
1. பொம்மைகள்	2-5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையை பொம்மையுடன் விளையாடச் சொல்லவும். **வழிமுறை** • குழந்தை தனக்கு தேவையான பொம்மையை தேர்வு செய்ய சொல்லவும். • பொம்மையுடன் எப்படி விளையாட வேண்டும் என்று சொல்லி கொடுக்கவும். • பொம்மையுடன் குழந்தையை விளையாட சொல்லவும்.	கார், ரயில் வண்டி, இசைக்கும் பொம்மைகள், பொம்மை தொலைபேசி	குழந்தை, பெற்றோர்
2. கட்டிடம் கட்டுதல்	2-5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையை கட்டிடம் கட்ட சொல்லவும். **வழிமுறை**	பிளாஸ்டிக் கட்டைகள், சதுர பிளாஸ்டிக்	குழந்தை, பெற்றோர்

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
				• விழிக்க வைக்கும் விளையாட்டை குழந்தையிடம் காண்பிக்கவும். • எப்படி விளையாடுவது என்று சொல்லிக் கொடுக்கவும். • குழந்தையை கோவில், பள்ளிக்கூடம், வீடு போன்றவற்றை உருவாக்க சொல்லவும்.	கட்டைகள்	
3. உணவு சமைக்கும் பாத்திரங்களைக் கொண்டு விளையாடுதல்.	2-5	ஆண்/ பெண்	30 நிமிடம்	• குழந்தையை உணவு சமைக்கும் பாத்திரங்களை வைத்து விளையாட சொல்லவும். **வழிமுறை** • குழந்தைக்கு தேவையான உணவு சமைக்கும் பாத்திரங்களை தேர்ந்தெடுக்கச் சொல்லவும் • எப்படி பாத்திரங்களை வைத்து விளையாடலாம் என்று செய்து காண்பிக்கவும். • குழந்தையை பாத்திரங்களை	உணவு சமைக்கும் பாத்திரங்கள்	குழந்தை

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
				வைத்து விளையாடி பின் அதன் செயல்முறையை விளக்கி கூறுமாறு சொல்லவும்.		
4. படங்கள் அடங்கிய புத்தகத்தை பார்த்து கதை சொல்லவும்	2-5	ஆண்/ பெண்	30 நிமிடம்	படங்கள் அடங்கிய புத்தகத்தை பார்த்து கதை சொல்லுமாறு குழந்தையிடம் கூறவும். **வழிமுறை** • படங்கள் அடங்கிய புத்தகத்தை குழந்தையிடம் காண்பிக்கவும். • புத்தகத்தில் உள்ள படங்களை பார்க்குமாறு குழந்தையிடம் கூறவும். • புத்தகத்தில் உள்ள படங்களுக்கு ஏற்ப கதை சொல்லுமாறு குழந்தையிடம் சொல்லவும்.	படங்கள் நிறைந்த புத்தகங்கள்	குழந்தை
5. கதை சொல்லுதல்	2-5	ஆண்/ பெண்	30 நிமிடம்	எளிதில் விளங்ககூடிய எளிய கருத்துடைய கதையைச் சொல்லவும். **வழிமுறை** • குழந்தையின் ஆவலைத் தெரிந்து கொள்ளவும்.		குழந்தை

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
				• குழந்தையின் ஆவலுக்கு ஏற்றவாறு கதை சொல்லவும்.		
6. பிளாஸ்டிக் வட்டங்களை அதன் வண்ணத்திற்கு ஏற்றவாறும், அளவிற்கு ஏற்றவாறும் அடுக்குதல்	2-5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையிடம் பிளாஸ்டிக் வட்டங்களைக் கொடுத்து, எப்படி விளையாட வேண்டும் என்று விளக்கி கூறவும். **வழிமுறை:** • வெவ்வேறு நிறமும், அளவும் உடைய பிளாஸ்டிக் வட்டங்களை குழந்தையிடம் கொடுக்கவும். • அதை அதன் நிறத்திற்கேற்ப அல்லது அளவிற்கு ஏற்ப, அடுக்குமாறு கூறவும்.	வெவ்வேறு நிறமும், அளவும் உடைய பிளாஸ்டிக் வட்டங்கள்	குழந்தை
7.பெட்டிகளை கோர்த்தல்	2-5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையிடம் பெட்டிகளையும் கயிற்றையும் கொடுத்து விளையாடுமாறு சொல்லவும். **வழிமுறை:** • குழந்தையிடம் பெட்டிகளையும், கயிற்றையும் தனித்தனியாக தரவும்.	பிளாஸ்டிக் பெட்டிகள், கயிறு	குழந்தை

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
				• எப்படி பெட்டிகளை கயிற்றில் கோர்க்குமாறு விளக்கவும். • அதை வைத்து விளாயாடச் சொல்லவும்		
8. சித்திரம் வரைதல்	3-5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையை பறவை, பொம்மை (அ) மருத்துவர் (அ) செவிலியரைப் போல படம் வரைய சொல்லவும். **வழிமுறை:** • என்ன படம் வரைய வேண்டும், எப்படி வரைய வேண்டும் என்பதை குழந்தைக்கு சொல்லி தரவும். • குழந்தைக்கு பேப்பர் (காகிதம்) எழுதுகோல் மற்றும் பென்சில் (அ) மெழுகு கொடுக்கவும். • குழந்தையை வீடு, பொம்மை, மருத்துவமனை (அ) கோயில் ஆகிய படங்களை வரைய சொல்லவும்.	பேப்பர், பென்சில், வண்ணக்குச்சி, மெழுகு	குழந்தை

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
9. வர்ணம்	3-5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையை, வரையப்பட்டிருக்கும் யானை அல்லது தெரிந்த எந்த படத்திற்காவது வர்ணம் தீட்டுமாறு சொல்லவும். **வழிமுறை:** • வர்ணத்தை எப்படி உபயோகப்படுத்த வேண்டும் என்று செய்து காட்டவும். • எந்தெந்த படங்களுக்கு வர்ணம் தீட்ட வேண்டுமென்று சொல்லவும். • குழந்தையை யானை, பறவை, இயற்கை காட்சிகள் போன்றவற்றிக்கு வர்ணம் தீட்டச் சொல்லவும்.	வர்ணம் தீட்டும் பெட்டிகள், வெள்ளை காகிதம், படம் வரையும் புத்தகம்	குழந்தை
10. களிமண் பொருட்கள்	3-5	ஆண்/ பெண்	30 நிமிடம்	களிமண்ணை கொண்டு குழந்தையை வீடு, படகு, பறவை விலங்கு போன்றவற்றை செய்ய	களிமண் பொருட்கள்	குழந்தை

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
				சொல்லவும். **வழிமுறை** • குழந்தைக்கு களிமண்ணை எவ்வாறு உபயோகப்படுத்த வேண்டும் என்று காண்பிக்கவும். • குழந்தையை வண்ணக்கிளி, மண்ணைக் கொண்டு பறவை விலங்கு, பொம்மை, வீடு, படகு போன்றவற்றை உருவாக்க சொல்லவும்.		
11. அட்டையில் உள்ள எழுத்து அல்லது எண்ணை வாசித்தல்	3-5	ஆண்/ பெண்	30 நிமிடம்	எழுத்து அல்லது எண்கள் அடங்கிய அட்டை குழந்தையிடம் காண்பித்து அதை வாசிக்க சொல்லவும். **வழிமுறை** • எழுத்து அல்லது எண்கள் அடங்கிய அட்டைகளை காண்பிக்கவும். • குழந்தையை அதை வாசிக்க சொல்லவும். • அதில் குழந்தைக்கு ஏதாவது	எழுத்து அல்லது எண்கள் அடங்கிட அட்டைகள்	குழந்தை, பெற்றோர்

விளையாட்டு பொருள்	வயது	பாலினம்	நேரம்	செய்முறை	தேவையான பொருட்கள்	விளையாட்டில் இடம் பெறுவர்
				சந்தேகம் இருந்தால் அதை தீர்த்து வைக்கவும்.		
12. பத்திரமாக வீட்டிற்கு செல்லும் வழியை கண்டுபிடித்தல்	5	ஆண்/ பெண்	30 நிமிடம்	குழந்தையை வீட்டிற்கு செல்லும் வழியை கண்டுபிடிக்கச் சொல்லவும் **வழிமுறை** • எப்படி வழியை கண்டுபிடிப்பது என்று குழந்தைக்கு சொல்லி கொடுக்கவும். • எங்கு சென்று முடிக்க வேண்டும் என்பதை காண்பிக்கவும்.	பேப்பர், பென்சில்	குழந்தை

அளவீடு:

அளவு	தரம்
0-3	லேசான வலி
4-7	மிதமான வலி
8-10	தாங்க முடியாத வலி

வலியின் அளவை மதிப்பிடும் அளவுகோல்

தன்மைகள்	0	1	2
முகம்	சிரித்தல் அல்லது எந்தவித முகபாவமும் இல்லாமல் இருத்தல்	பேச்சுகுரல் அல்லது சத்தத்திற்கு கவனம் செலுத்தாமல் இருத்தல்	வாடிய முகபாவம் மற்றும் பற்களை இறுக்கி கடித்தல்
கால்கள்	எந்தவித தடங்கலும் இல்லாமல் அசைத்தல்	கால்களை இருக்கமாக வைத்தலும், மிக மெதுவாக அசைத்தலும்	கால்களை உதைத்தல்.
செயல்பாடு	➢ விளையாட்டில் ஆர்வத்துடன் பங்கு பெறுதல். ➢ எல்லா திசைகளிலும் சிரமம் இன்றி திரும்புதல்	➢ அறுவை சிகிச்சை செய்த திசையில் திரும்ப மறுத்தல். ➢ பொம்மையை கையில் மட்டும் பிடித்துக் கொண்டு, அதை வைத்து விளையாட ஆர்வம் இல்லாமல் இருத்தல்.	➢ இருந்த நிலையிலேயே இருத்தல். ➢ விளையாட்டு பொருளை தூக்கி எரிதல்.
அழுகை	குழந்தை பேசுவதும், தன் சொந்த மொழியில் சத்தம் போட்டும் இருத்தல்	➢ எந்தவித சத்தமும், பேச்சும் இல்லாமல் இருத்தல். ➢ முனகுதல். ➢ கண்ணில் நீர் நிரம்பி இருத்தல்.	➢ வாயை அகல வரித்து அழுகுதல் ➢ கண்ணீர் கன்னம் வரை வழிதல்
சமாதானம் செய்தல்	ஏதாவது ஒரு விளையாட்டு பொருளை கொடுத்தால், அதை வைத்து விளையாடுதல்	மசாஜ், மற்றும் அழுத்தம் கொடுத்தல் மற்றும் ஒற்றடங்கொடுத்தலுக்கு வலி குறைதல்	➢ தொடர்ச்சியாக அழுவுதல், ➢ உணவு உட்கொள்ள மறுத்தல் ➢ விளையாட்டில் பங்குபெற மறுத்தல்

ஆராய்ச்சி தகவல் தாள்

ஆராய்ச்சி தலைப்பு

2-5 வயதிற்குட்பட்ட குழந்தைகளுக்கு வயிறு சம்பந்தப்பட்ட அறுவை சிகிச்சைக்குப் பின் ஏற்படும் வலியை குறைக்க விளையாட்டு பொருட்களை கொண்டு திசை திருப்புதல் செய்யும் ஆய்வுமுறை

ஆய்வாளர் : பா.சித்ரா

பங்கேற்பாளர் :

இந்த ஆய்வு அரசு குழந்தைகள் நலம் மற்றும் குழந்தைகள் மருத்துவமனையில் நடைபெற உள்ளது. நீங்கள் உங்கள் குழந்தையை இந்த ஆய்வில் பங்கேற்க நாங்கள் விரும்புகிறோம். இதிலுள்ள தகவலின் அடிப்படையில் இந்த ஆய்வில் பங்கேற்பதா அல்லது வேண்டாமா என்று நீங்கள் முடிவு செய்து கொள்ளலாம். உங்களது சந்தேகங்களை எங்களிடம் கேட்டு நிவர்த்தி செய்து கொள்ளலாம்.

இந்த ஆய்வின் நோக்கம்

2-5 வயதிர்குட்பட்ட குழந்தைகளுக்கு வயிறு சம்பந்தப்பட்ட அறுவை சிகிச்சைக்குப் பிறகு ஏற்படும் வலியை திசை திருப்பவும் மேலும் வலியினால் ஏற்படும் அவதியை குறைக்கவும், மருத்துவ சிகிச்சைக்கு ஒத்துழைக்கவும், விரைவில் குணமடையவும் குழந்தைகளை திசை திருப்பும் ஆய்வு.

இந்த ஆய்விற்கு இன்ஸ்டிட்யூசனல் எத்திக்கல் கமிட்டி சம்மதம் பெற்றிருக்கிறோம்.

ஆய்வின் செயல்முறை

இந்த ஆய்வில் கலந்து கொள்பவர்கள் A மற்றும் B என்று இரு குழுக்களாக பிரிக்கப்படுவார்கள்.

A குழுவில் உள்ளவர்கள் வழக்கமான சிகிச்சையையும், B குழுவில் உள்ளவர்கள் வழக்கமான சிகிச்சையுடன் விளையாட்டு பொருட்கள் உபயோகித்து அறுவை சிகிச்சையினால் ஏற்படும் வலிகளை திசை திருப்பும் முயற்சி செய்யவும், முயற்சிக்கு பின் வலியின் அளவுகோலை கண்டறிப்படுகின்றது.

ஆய்வினால் ஏற்படும் நன்மைகள்

இந்த ஆய்வில் கலந்த கொள்வதன் முலம் குழந்தையின் வலி அவதியை குரைத்துக் கொள்கிறார்கள். இதன்மூலம் சிகிச்சைக்கு முழு ஒத்துழைப்பு கிடைக்கின்றது. அதனால் சற்று வேகமாக குணமடைய உதவுகிறது.

மருத்துவ சிகிச்சையின் தகவல்கள் குறித்த விவரம்

உங்கள் மருத்துவ சிகிச்சை குறித்த தகவல்கள் ரகசியமாக பாதுகாக்கப்படும் (பெயர், மருத்துவ பரிசோதனை முடிவு, மருத்துவ ஆய்வு முடிவு) இந்த தகவல் தாளில் கையெழுத்திடுவதின் மூலம் உங்களை பற்றிய குறிப்புகளோ, எடுத்துக் கொண்ட சிகிச்சை முறையை பற்றியோ ஆய்வாளரோ இன்ஸ்டிட்யுசன் எத்திக்கல் கமிட்டியை சார்ந்தவர்களோ தேவைபட்டால் அறிந்து கொள்ளலாம் என்று சம்மதிக்கிறீர்கள். முடிவுகளை அல்லது கருத்துக்களை வெளியிடும் போதோ அல்லது ஆய்வின் போதோ தங்களது பெயரையோ அல்லது அடையாளங்களையோ வெளியிடமாட்டோம் என்பதையும் தெரிவித்துக் கொள்கிறோம்.

இந்த ஆய்வில் பங்கேற்காவிட்டாலும் நீங்கள் வழக்கமான கிசிச்சையை தொடர்ந்து பெறலாம்.

இந்த ஆய்வில் பங்கேற்பது தங்ளுடைய விருப்பத்தின பேரில் தான் இருக்கிறது. மேலும் நீங்கள் எந்நேரமும் இந்த ஆய்விலிருந்து பின்வாங்கலாம் என்பதையும் தெரிவித்துக் கொள்கிறோம்.

இந்த சிறப்பு சிகிச்சையின் முடிவுகளை ஆய்வின்போதோ அல்லது ஆய்வின் முடிவின்போதோ தங்களுக்கு அறிவிப்போம் என்பதையும் தெரிவித்துக் கொள்கிறோம்.

ஆய்வாளர் கையொப்பம் **பங்கேற்பாளர்/பாதுகாவலர் கையொப்பம்**

தேதி :

<u>சுய ஒப்புதல் படிவம்</u>

ஆய்வு தலைப்பு:

2-5 வயதிற்குட்பட்ட குழந்தைகளுக்கு வயிறு சம்பந்தப்பட்ட அறுவை சிகிச்சைக்குப் பின் ஏற்படும் வலியை குறைக்க விளையாட்டு பொருட்களை கொண்டு திசை திருப்புதல் செய்யும் ஆய்வுமுறை

பெயர்: வயது: தேதி: வெளிநோயளி எண்:

..... என்பவராகிய நான் இந்த ஆய்வின் விவரங்களும் அதன் நோக்கங்களும் முழுமையாக அறிந்து கொண்டேன். எனது சந்தேங்கள் அனைத்திற்கும் தகுந்த விளக்கம் அளிக்கப்பட்டது. இந்த ஆய்வில் முழு சுதந்திரத்துடன் மற்றும் சுயநினைவுடன் பங்கு கொள்ள சம்மதிக்கிறேன்.

எனக்கு விளக்கப்பட்ட விஷயங்களை நான் புரிந்து கொண்டு நான் எனது சம்மதத்தை தெரிவிக்கிறேன். இச்சுய ஒப்புதல் படிவத்தை பற்றி எனக்கு விளக்கப்பட்டது.

இந்த ஆய்வினை பற்றிய அனைத்து தகவல்களும் எனக்கு தெரிவிக்கப்பட்டது. இந்த ஆய்வில் எனது உரிமை மற்றும் பங்கினை பற்றி அறிந்து கொண்டேன்.

இந்த ஆய்வில் பிறரின் நிர்பந்தமின்றி என் சொந்த விருப்பத்தின் பேரில் தான் பங்கு பெறுகிறேன் மற்றும் நான் இந்த ஆராய்ச்சியிலிருந்து என்நேரமும் பின்வாங்கலாம் என்பதையும் அதனால் எந்த பாதிப்பும் ஏற்படாது என்பதையும் நான் புரிந்து கொண்டேன்.

இந்த ஆய்வில் கலந்து கொள்வதன் மூலம் என்னிடம் பெறப்படும் தகவலை ஆய்வாளர் இன்ஸ்ட்டியூசனல் எத்திக்ஸ் கமிட்டியினரிடமோ, அரசு நிறுவனத்தினடமோ தேவைப்பட்டால் பகிர்ந்து கொள்ளலாம் என சம்மதிக்கிறேன்.

இந்த ஆய்வின் முடிவுகளை வெளியிடும்போது எனது பெயரோ, அடையாளமோ வெளியிடப்படாது என அறிந்து கொண்டேன். இந்த ஆய்வின் விவரங்களைக் கொண்ட தகவல்தாளைப் பெற்றுக் கொண்டேன். இந்த ஆய்விற்காக இரத்தப் பரிசோதனை செய்து கொள்ள சம்மதிக்கிறேன்.

இந்த ஆய்வில் பங்கேற்கும் பொழுது ஏதேனும் சந்தேகம் ஏற்பட்டால், உடனே ஆய்வாளரை தொடர்பு கொள்ள வேண்டும் என அறிந்து கொண்டேன்.

இச்சுய ஒப்புதல் படிவத்தில் கையெழுத்திடுவதன் மூலம் இதிலுள்ள அனைத்து விஷயங்களும் எனக்கு தெளிவாக விளக்கப்பட்டது என்று தெரிவிக்கிறேன் என்று புரிந்து கொண்டேன். இச்சுய ஒப்புதல் படிவத்தின் ஒரு நகல் எனக்கு கொடுக்கப்படும் என்று தெரிந்து கொண்டேன்.

பங்கேற்பாளர்/பாதுகாவலர் கையொப்பம் தேதி :

ஆய்வாளர் கையொப்பம் தேதி :

INFORMED CONSENT FORM

"A STUDY TO ASSESS THE EFFECTIVENESS OF PLAY THERAPY IN REDUCING POST-OPERATIVE PAIN AMONG THE CHILDREN AGED GROUP OF 2-5 YEARS WHO HAVE UNDERGONEABDOMINAL SURGERIES IN INSTITUTE OF CHILD HEALTH",EGMORE, CHENNAI -08.

Name of the Participant:

I_____ have read the information in this form (or it has been read to me. I was free to ask any questions and they have been answered. I am over 18 years of age and, exercising my free power of choice, hereby give my consent to be included as a participant in this study.

1. I have read and understood this consent form and the information provided to me
2. I have had the consent document explained to me.
3. I have been explained about the nature of the study
4. I have been explained about my rights and responsibilities by the investigator.
5. I am aware of the fact that I can opt out of the study at any time without having to give any reason and this will not affect my child future treatment in this hospital.
6. I hereby give permission to the investigators to release the information obtained from my child as result of participation in this study to the sponsors. Regulatory authorities. Govt. agencies and IEC.I understand that they are publicly presented.
7. I have understand that my child identity will be kept confidential if my data are publicly presented.
8. I have had my questions answered to my satisfaction.
9. I have decided for my child to by in the research study.

I am aware that if I have any question during this study. I should contact the investigator. By signing this consent form I attest that the information given in this document has been clearly explained to me and understood by me, I will be given a copy of this consent document.

1. Name and signature / thumb impression of the Parent / Guardian (or legal representative if participant incompetent)

Name _____ Signature _____Date_____

1. Name and Signature of impartial witness (required for illiterate Parent / Guardian

Name _____ Signature _____Date_____

Address and contact number of the impartial witness.

Name and Signature of the investigator or his representative obtaining consent.

Name _____ Signature _____Date_____

ABBREVIATIONS

ABBREVIATIONS	EXPANSION
FLACC	Face, Legs, Activity, Cry, Consolability
PICU	Pediatric Intensive Care Unit
PRN	Round ‘O’ Clock
OPS	Objective pain scale
PACU	Post Anaesthesia Care Unit
EMLA	Entectic Mixture of Local Anaesthetics
SD	Standard Deviation
M.P.B.S.	Mean Pain Behavioural Score
DF	Degree of Freedom
ANOVA	Analysis of Variances
SICU	Surgical Intensive care unit

SL.NO	GROUP	AGE	SEX	EDUCATIONAL STATUS	INCOME	RESIDENCE	EDUCATION OF FATHER	EDUCATION OF MOTHER	WEIGHT OF THE CHILD	HEIGHT OF THE CHILD	HEAD CIRCUMFERENCE OF THE CHILD	CHEST CIRCUMFERENCE	MID ARM CIRCUMFERENCE	PRE PAIN SCORE	PRE PAIN SCORE CLASSIFICAION	POST PAIN SCORE	POST PAIN SCORE CLASSIFICATION
1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	2	2	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	7	2	3	1
3	1	1	1	1	2	1	1	1	1	1	1	1	1	6	2	2	1
4	1	1	1	1	2	1	1	1	1	1	1	1	1	6	2	2	1
5	1	1	1	1	2	1	1	1	1	1	1	1	1	7	2	2	1
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27	1	1	2	2	4	2	5	4	3	2	3	3	4	7	2	2	1
28	1	1	2	2	4	2	5	4	3	2	3	3	4	7	2	3	1
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33	2	1	1	1	1	1	2	1	1	1	1	1	1	7	2	6	2
34	2	1	1	1	2	1	2	1	1	1	1	1	1	7	2	6	2
35	2	1	1	1	2	1	2	1	1	1	1	1	1	7	2	7	2
36	2	1	1	1	2	1	2	1	1	2	1	1	1	7	2	7	2
37	2	1	1	1	2	1	2	1	1	2	1	1	1	7	2	7	2
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42	2	2	1	2	3	1	3	2	2	2	2	2	2	7	2	7	2
43	2	2	1	2	3	1	3	2	2	2	2	2	2	7	2	7	2
44	2	2	1	2	3	1	3	2	2	2	2	2	2	7	2	6	2
45	2	2	1	2	3	2	3	2	2	2	2	2	2	7	2	7	2
46	2	2	1	2	3	2	3	2	2	2	2	2	2	7	2	7	2
47	2	2	1	2	3	2	3	3	2	2	2	2	2	7	2	8	3
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51	2	2	1	2	3	2	3	3	2	3	2	2	3	7	2	6	2
52	2	2	2	2	4	2	3	3	2	3	2	2	3	5	2	4	2
53	2	2	2	2	4	2	5	2	2	3	3	2	3	7	2	7	2
54	2	2	2	2	4	2	5	3	2	3	3	2	3	5	2	4	2
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56	2	3	2	2	4	2	5	4	3	2	3	2	4	8	3	8	3
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59	2	3	2	2	4	2	2	1	3	1	2	3	4	7	2	6	2
60	2	3	2	2	3	1	3	2	3	2	3	3	4	7	2	8	3

SL.NO	GROUP	AGE	SEX	EDUCATIONAL STATUS	INCOME	RESIDENCE	EDUCATION OF FATHER	EDUCATION OF MOTHER	WEIGHT OF THE CHILD	HEIGHT OF THE CHILD	HEAD CIRCUMFERENCE OF THE CHILD	CHEST CIRCUMFERENCE	MID ARM CIRCUMFERENCE	PRE PAIN SCORE	PRE PAIN SCORE CLASSIFICAION	POST PAIN SCORE	POST PAIN SCORE CLASSIFICATION	anaesthesia	sedation	analgesics	difference score
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	2	2	1	1	1	4
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	2	3	1	1	1	5
3	1	1	1	1	2	1	1	1	1	1	1	1	1	1	6	2	2	1	1	1	4
4	1	1	1	1	2	1	1	1	1	1	1	1	1	1	6	2	2	1	1	1	4
5	1	1	1	1	2	1	1	1	1	1	1	1	1	1	7	2	2	1	1	1	5
6	1	2	1	1	2	1	2	1	1	1	1	1	1	1	7	2	2	1	1	1	5
7	1	2	1	1	2	1	2	1	1	2	1	1	1	1	7	2	2	1	1	1	5
8	1	2	1	1	2	1	2	1	1	2	1	1	1	1	6	2	2	1	1	2	4
9	1	2	1	1	2	1	2	1	1	2	1	1	1	1	7	2	2	1	1	1	5
10	1	2	1	1	3	1	2	1	1	2	1	1	2	1	6	2	2	1	2	1	4
11	1	2	1	1	3	1	2	1	1	2	1	1	2	1	6	2	1	1	1	1	4
12	1	2	1	1	3	1	2	1	2	2	2	1	2	1	7	2	2	1	1	2	5
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14	1	2	1	2	3	1	3	2	2	2	2	2	2	1	7	2	3	1	1	1	5
15	1	2	1	2	3	1	3	2	2	2	2	2	2	1	6	2	2	1	1	1	4
16	1	2	1	2	3	1	3	2	2	2	2	2	2	1	6	2	1	1	2	2	4
17	1	2	1	2	3	1	3	2	2	2	2	2	2	1	7	2	2	1	2	2	5
18	1	2	1	2	3	1	3	3	2	2	2	2	2	1	6	2	1	1	2	2	4
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20	1	2	1	2	3	2	3	3	2	2	2	2	3	1	7	2	2	1	1	1	5
21	1	3	1	2	3	2	3	3	2	2	2	2	3	1	6	2	1	1	1	1	4
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23	1	3	1	2	4	2	3	3	2	3	2	2	3	1	7	2	2	1	1	1	5
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25	1	3	2	2	4	2	5	3	2	3	3	3	4	1	6	2	2	1	1	1	4
26	1	2	2	2	4	2	5	3	3	3	3	3	4	1	7	2	2	1	1	1	5
27	1	1	2	2	4	2	5	4	3	2	3	3	4	1	7	2	2	1	1	1	5
28	1	1	2	2	4	2	5	4	3	2	3	3	4	1	7	2	3	1	1	1	5
29	1	1	2	2	4	2	1	4	3	2	1	3	4	1	8	3	3	1	1	1	5
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31	2	1	1	1	1	1	1	1	1	1	1	1	1	1	7	2	6	2	1	1	1
32	2	1	1	1	1	1	1	1	1	1	2	1	1	1	6	2	6	2	1	1	0
33	2	1	1	1	1	1	2	1	1	1	1	1	1	1	7	2	6	2	1	1	1
34	2	1	1	1	2	1	2	1	1	1	1	1	1	1	7	2	6	2	1	1	1
35	2	1	1	1	2	1	2	1	1	1	1	1	1	1	7	2	7	2	1	1	0
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37	2	1	1	1	2	1	2	1	1	2	1	1	1	1	7	2	7	2	1	1	0
38	2	2	1	1	2	1	2	1	1	2	1	1	2	1	7	2	6	2	1	1	1
39	2	2	1	1	2	1	3	1	1	2	1	1	2	1	7	2	7	2	1	1	0
40	2	2	1	1	2	1	3	1	2	2	1	1	2	1	7	2	6	2	1	1	1
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42	2	2	1	2	3	1	3	2	2	2	2	2	2	1	7	2	7	2	1	1	0
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CERTIFICATE OF ENGLISH EDITING

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the dissertation work , " A study to assess the effectiveness of play therapy in reducing post-operative pain among children aged 2-5 years who have undergone abdominal surgeries at Institute of child health , Egmore, Chennai-8" done by Ms.B.Chitra,II year M.Sc (nursing) student of College of Nursing, Madras Medical College, Chennai-3 is edited for English language appropriateness by

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